

# Varieties of Grain Crops 2015

## Crop Production Areas



The cropland of Saskatchewan has been divided into four areas based roughly on agro-climatic conditions. Crop yields can vary from area to area. In choosing a variety, producers will want to consider the yield data in combination with marketing and agronomic factors.

**Area 1:** Drought is a definite hazard and high winds are common. Sawfly outbreaks often occur in this area. Cereal rust may be a problem in the southeastern section.

**Area 2:** Drought and sawfly may be problems in the western and central sections of the area. Cereal rust may be a problem in the southern section.

**Area 3:** Sawfly can also be a problem. Drought is not as likely to be a problem in this area, particularly in the east. Cereal rust may occur in the eastern portion. The frost-free period can be fairly short in the northern section.

**Area 4:** Rainfall is usually adequate for crop production. However, early fall frosts and wet harvest conditions are frequent problems.

### Note About Dividing Lines:

The dividing lines do not represent distinct changes over a short distance. The change from one area to another is gradual.

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## Symbols and Abbreviations Used:

- § Variety may not be described in 2016
- Insufficient test data to describe
- ^ Plant Breeders' Rights at time of printing
- ~ Applied for PBR protection at time of printing

**Relative maturity:** VE = Very Early, E = Early, M = Medium, L = Late, VL = Very Late

**Resistance:** VG = Very Good, G = Good, F = Fair, P = Poor, VP = Very Poor, n/a = not applicable

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# Testing Varieties in Saskatchewan

By Saskatchewan Ministry of Agriculture

Regional testing of crop varieties is conducted to provide producers with information on the agronomic performance of varieties under different agro-climatic conditions. Saskatchewan producers will continue to have the opportunity to evaluate the newest grain crop varieties and their suitability for production in different regions of the province.

The Saskatchewan Ministry of Agriculture provides \$100,000 towards a testing program that is based on industry-government partnership. An entry fee system is used in which variety owners or companies with the distribution rights to a particular variety pay a portion of the cost of having the variety tested. The Saskatchewan Seed Growers' Association, Saskatchewan Wheat Development Commission, Saskatchewan Barley Development Commission, Saskatchewan Oat Development Commission and SaskFlax collectively provide \$75,000 to the program.

Technical and in-kind support is also provided by Agriculture and Agri-Food Canada, Saskatchewan Crop Insurance Corporation and The Western Producer, publisher of the 2015 SaskSeed Guide.

A long-term database is maintained to provide comparisons to a commonly grown check variety. The data include information on yield, various agronomic factors, and certain market related traits.

The Saskatchewan Variety Performance Group (SVPG) administers the program for spring cereals and flax. SVPG is composed of representatives from individual organizations with an interest in providing variety testing information.

SeCan Association administers the funds for SVPG. Crop coordinators manage the data and provide expertise for their respective crops.

The results of the testing are reviewed by the Saskatchewan Advisory Council on Grain Crops (SACGC), which also updates disease and other agronomic information, and approves the data prior to inclusion in this publication.

The Saskatchewan Ministry of Agriculture grant also provides some support to programs that test pulses, sunflower and canaryseed. The testing information from these crops is included in this publication.

## Relative yield of varieties

Trials are conducted using uniform protocols

and standard check varieties. Data are collected from as many sites as are available and statistically analyzed. Results in this publication are aggregated over a number of years and on an area basis for most crops.

Grain yield is a function of genetic and non-genetic factors. Variety trials are designed to measure the yield differences that are due to genetic causes. It is important to minimize variability due to non-genetic factors such as moisture, temperature, transpiration, weeds, diseases and other pests. Experimental design uses replication (repeated plantings of the varieties) and randomization (the position of the varieties within the test is assigned by chance) to estimate the precision with which the genetic factors can be measured.

Relative yield is the yield of one variety expressed as a percentage of the check variety. Yields obtained in these trials are not identical to those obtained in commercial production. However, the relative ranking of these varieties compared to the check variety, obtained over a number of years at several locations, would remain the same regardless

of whether the grain yield was measured in small plots or large-scale fields. Relative yield is the best estimate of expected yield advantage in the areas indicated.

## Testing Pulse Crops

In 2014, the Saskatchewan Pulse Growers and the pulse breeding program at the Crop Development Centre (CDC), University of Saskatchewan, continued a 5-year agreement with a budget of \$160,000 per year to conduct the pulse crop regional variety trials in Saskatchewan. The CDC collaborates with researchers at several locations, including Agriculture and Agri-Food Canada research stations, provincial Agri-ARM sites, and the Canada-Saskatchewan Irrigation Diversification Centre, in order to conduct the trials. The project collects data on varieties from the CDC program, as well as those arising from other public or private pulse breeding programs. Since 2006, field pea, lentil, chickpea, dry bean and faba bean variety trials were conducted at 3-15 locations per crop in their target areas of adaptation in Saskatchewan. (Source: CDC)

## Relative Maturity

### Ratings

Maturity is measured from seeding to swathing ripeness. The actual number of days to reach maturity depends on local climatic conditions and to some extent on management practices.

Some of the tables in this booklet express the relative maturity in days while others use a five category scale: VE, E, M, L, and VL (very early, early, medium, late, very late). The limits for each category can vary from crop to crop. In barley, for example, AC Metcalfe would be M, with L and E varieties plus or minus 1-2 days, and VL and VE varieties beyond this range.

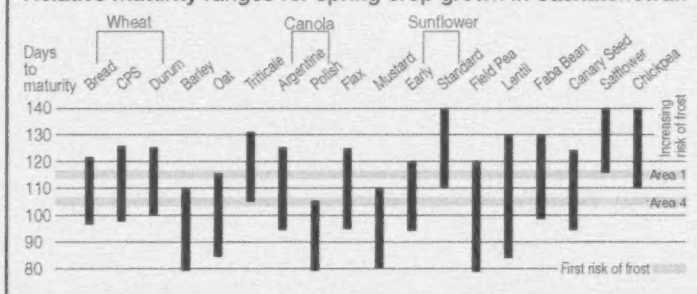
### Comparisons

The relative maturity of varieties of different crops is important when making plans for seeding.

The table below compares the relative maturity ranges for crops grown in Saskatchewan. Within each crop there are early and late maturing varieties. Whether a crop matures before the first killing frost depends on seeding date, management practices and environmental factors. Not all crops have a wide area of adaptation.

It is noted that climatic conditions can cause a wide variability in crop maturity.

Relative maturity ranges for spring crop grown in Saskatchewan



# Plant Disease Resistance

By Saskatchewan Ministry of Agriculture

Resistance to the most important diseases in Western Canada is assessed in most crops before the variety is registered. The methods used to assess resistance in each crop are different. In some cases, spores of the pathogen are applied to plants in the greenhouse or in the field. In other cases, assessment is based on naturally occurring infection in the field. Each variety is rated on a five-point scale of very poor (VP), poor (P), fair (F), good (G), very good (VG). New varieties are not tested side-by-side with all existing varieties.

Because of variation in disease levels from year to year, each new variety is assigned a rating relative to a few existing varieties that serve as disease level standards or checks. Varieties differ in resistance because of differences in their genetic make-up and/or differences in the genetic make-up of the pathogen that causes the disease. However, the genetic make-up of a pathogen can change over time, and overcome the resistance in a variety. In such cases, a va-

riety with good resistance can quickly display poor resistance to a particular disease. Unfortunately, because not all varieties are tested side-by-side every year, the ratings of older varieties may be less reliable.

Preserving the efficacy of disease resistance genes in current crop varieties is the most economical method of plant disease control. Disease resistance can be prolonged with good agronomic and integrated pest management practices. Crop type, variety and fungicide rotation is an important method of preserving the effectiveness of disease resistance genes and fungicides. Disease resistance genes usually become ineffective due to short rotations and the prolonged use of one crop variety on a large acreage.

A number of factors can affect the level of disease symptoms observed at a given location in a given year. Environmental conditions such as moisture and temperature, the genetic make-up of both the variety and the pathogen, and the amount of the pathogen

present can all affect the level of disease. Although a variety with fair resistance can show disease symptoms under favourable conditions, a susceptible variety would have much more disease under the same conditions.

For example, ascochyta blight of chickpea is a very aggressive fungal disease. It can completely kill susceptible varieties within two weeks of symptoms first appearing. Chickpea varieties currently grown commercially in Saskatchewan have fair ascochyta blight ratings. This resistance weakens as plant development nears the flowering stage. Cool, moist environmental conditions favour the disease, and if these conditions persist early in the growing season, the disease symptoms can occur much earlier than the flowering stage. This is especially true on chickpea grown outside the Brown Soil Zone (the area of best adaptation) or on heavy textured soils such as clays and clay loams.

In the past, infected chickpea varieties lacking resistance to ascochyta blight can be defoliated, with girdled branches and dead plants. If conditions turn warm and dry, the diseased plants can re-grow from auxiliary nodes, often producing flowers and pods. However, these late pods and seeds will most likely be frozen in the first fall frost and have no commercial value.

## What is Plant Breeders' Rights

Plant Breeders' Rights (PBR) provides a way to assure that companies and institutions that invest in plant breeding are able to keep reasonable control of their varieties and secure fair compensation for their efforts. This encourages additional investment in crop variety development for Canadian farmers.

Plant Breeders' Rights for crop variety developers are comparable in many ways to patent protection in other areas. When a plant breeder develops a new variety for use in Canada they may apply under the Plant Breeders' Rights Act to obtain certain controls over the multiplication and sale of the seed of that variety. Sale, trade or any other transfer of the seed for propagation purposes is prohibited by law without:

- 1) the written permission of the breeder or their agent; and
- 2) payment of a royalty to the breeder or their agent.

Under PBR, farmers are allowed to save seed of the variety for their own use, on their own farms.

Varieties protected by Plant Breeders' Rights are identified with the above logo.

Further information can be obtained from the Plant Breeders' Rights Office, tel. 613-773-7188, fax 613-773-7261.





# CEREAL CROPS

## Wheat

### Main Characteristics of Varieties

Category and Variety	Years Tested	Area 1 & 2	Area 3 & 4	Irriga- tion	Pro- tein	Resistance To										Rel. Ma- turity (days)	Head Awned- ness	Seed Weight (mg)	Vol- ume Wt. <sup>2</sup> (kg/hL)	Ht. (cm)
						Lodg- ing	Sprout- ing	Stem Rust	Leaf Rust	Stripe Rust	Loose Smut	Bunt	Leaf Spot	FHB						
CWRS <sup>1</sup>		Yield (% Carberry)					Relative to Carberry													
Carberry ☼	6	100	100	100	14.6	VG	F	G	VG	G	G	VG	P	G	105	Y	36.0	80.3	84	
CDC Abound ☼§	6	101	102	102	-0.2	G	F	VG	P	P	F	F	P	VP	-1	Y	+1.2	-1.5	+5	
Avena ☼§	5	97	101	97	+0.3	G	P	G	F	F	G	G	—	P	-4	N	-2.3	-1.2	+13	
AAC Bailey ☼	4	99	103	—	0.0	G	G	VG	VG	—	P	G	F	P	F	-2	N	-1.3	-1.1	+12
AC Barrie	6	94	99	98	+0.1	G	G	G	P	VP	G	F	P	F	-2	N	-1.3	-1.1	+12	
AAC Brandon ☼	3	107	105	—	-0.5	G	P	VG	VG	G	G	P	F	G	0	Y	-0.1	-0.2	-1	
Cardale ☼	5	99	102	—	-0.2	G	G	VG	VG	G	F	G	P	G	-1	Y	-2.8	-1.2	+3	
Coleman	2	98	99	—	-0.2	F	P	G	VG	G	VP	VP	P	G	-3	Y	-1.1	-0.5	+15	
AAC Elie ☼	3	105	104	—	-0.4	G	F	VG	VG	G	F	F	F	F	0	Y	+0.1	0.0	-2	
Fieldstar VB ☼§	6	103	106	—	-0.2	F	VG	G	VG	P	F	F	F	F	-2	Y	-3.4	-0.4	+15	
Glenn ☼	6	102	103	102	-0.4	VG	F	VG	VG	G	F	F	F	F	-1	Y	-1.2	+3.3	+8	
CDC Go	5	95	102	—	0.0	G	P	VG	F	G	P	F	VP	P	-3	Y	+2.3	-1.4	+7	
Goodeve VB ☼	6	101	107	—	0.0	VG	G	G	G	F	G	P	F	VP	-4	N	-0.6	-2.0	+9	
Harvest ☼	6	94	103	—	-0.3	VG	VG	VG	G	G	G	VP	P	VP	-3	N	-2.8	-1.6	+10	
Infinity ☼	6	100	106	—	-0.1	G	G	G	G	P	G	G	G	VP	-3	N	-4.0	-1.7	+12	
AC Intrepid ☼	6	96	105	—	-0.2	G	P	G	G	G	F	G	P	P	-5	N	+3.2	-1.8	+11	
CDC Kernen ☼	6	101	106	101	0.0	G	P	G	G	F	VG	F	F	F	-1	Y	+0.1	-1.3	+15	
Lillian ☼	6	94	97	—	+1.1	F	G	G	VG	VG	F	G	G	VP	-2	N	0.0	-2.7	+12	
CDC VR Morris ☼	4	110	109	—	-0.4	G	P	G	VG	—	F	F	F	G	-3	N	-2.8	-0.5	+10	
Muchmore ☼	6	103	99	102	-0.4	VG	G	VG	VG	G	G	VG	P	P	0	Y	+0.1	-1.1	-3	
CDC Plentiful ☼	4	106	107	—	-0.3	VG	P	VG	VG	G	VG	F	P	G	-3	N	-2.4	-1.5	+8	
AAC Prevail VB ☼	2	116	111	—	-0.7	G	G	G	VG	VG	VP	VP	P	F	-1	N	-1.9	-0.9	+20	
AAC Redwater ☼	3	104	102	—	0.0	G	VG	VG	VG	G	P	F	P	F	-5	Y	-2.8	-1.7	+7	
Shaw VB ☼	6	112	114	103	-0.7	G	G	VG	G	F	VP	G	P	P	-3	N	0.1	-0.2	+17	
CDC Stanley ☼	6	103	107	100	-0.1	G	G	VG	G	F	G	VP	F	P	-2	N	-3.4	-2.3	+10	
Stettler ☼	6	105	107	100	+0.2	G	G	G	P	G	VG	G	P	P	-1	Y	-1.4	-1.1	+7	
SY433 ☼	4	98	105	—	-0.4	G	VG	VG	VG	—	F	VP	F	G	-2	Y	+0.6	-0.3	+14	
CDC Thrive ☼	6	104	103	—	-0.1	G	F	G	F	F	G	F	F	P	-3	N	-1.8	-1.1	+13	
Thorsby ☼	1	106	106	—	+0.2	G	F	G	VG	VG	F	VP	P	F	-4	N	+1.0	-0.3	+10	
CDC Titanium VB ☼	2	110	114	—	+0.7	F	P	F	VG	VG	P	F	P	G	-3	Y	+1.0	-1.1	+11	
Unity VB ☼	6	111	115	—	-0.6	F	VG	G	VG	P	P	VG	F	F	-2	Y	-1.7	+0.4	+14	
CDC Utmost VB ☼	6	108	112	107	-0.4	G	G	G	VG	F	P	VP	F	P	-3	N	-1.7	-1.3	+10	
Vesper VB ☼	5	110	115	—	-0.8	F	F	G	VG	VP	F	VP	P	F	-3	Y	+1.5	0.0	+11	
AAC W1876	1	98	99	—	-0.1	G	G	G	VG	F	F	F	P	F	-1	Y	0.0	-0.3	+1	
Waskada ☼	6	108	107	108	-0.2	F	VG	VG	F	P	G	VG	P	G	-1	Y	-1.0	+0.3	+16	
WR859CL ☼	6	101	101	102	-0.1	G	G	G	VG	F	VG	VG	P	G	-2	Y	-2.6	-1.1	+7	
5603HR ☼§	6	107	108	—	-0.6	G	VG	G	VG	P	P	F	G	F	-1	Y	-2.0	-0.4	+14	
5604HR CL ☼	6	95	98	107	-0.4	G	G	VG	VG	—	P	F	P	F	-4	Y	-3.7	-1.5	+10	
5605HR CL ☼	2	105	107	—	+0.2	G	—	P	G	—	VG	G	P	G	-1	Y	-1.6	+0.5	+11	
CWHWS <sup>1</sup>																				
AAC Iceberg ☼	3	100	98	—	-0.7	G	P	VG	VG	F	P	F	P	F	-2	Y	+1.2	-0.4	+4	
AAC Whitefox ☼	2	105	108	—	-1.0	VG	F	G	G	P	P	P	P	F	-3	N	-2.5	-0.7	+19	
Whitehawk ☼	4	99	96	—	-1.0	G	G	F	VG	P	F	P	P	P	-4	N	-5.4	-0.8	+12	
CDC Whitewood ☼	3	95	97	—	-0.4	G	G	G	G	F	VP	VP	P	F	-2	Y	-2.1	-1.2	+6	
CWES <sup>1</sup>																				
Burnside§	6	99	107	—	—	F	G	VG	VG	VG	VG	F	P	VP	-2	N	+2.3	-1.5	+18	
Glencross VB§	4	103	117	—	—	F	F	VG	G	—	VG	F	P	VP	-3	N	+5.9	-3.6	+20	
CWSWS <sup>1</sup>																				
AC Andrew	5	129	134	—	—	VG	P	G	P	F	VP	VP	F	F	+2	Y	-1.4	-5.0	+3	
AAC Chiffon ☼	3	135	139	—	-3.8	G	P	VP	F	G	VP	VP	—	VP	+2	Y	+4.3	-4.0	+13	
Sadash ☼	5	136	133	—	—	VG	P	G	F	VG	F	VP	F	VP	+3	Y	0.0	-3.0	+6	

# Wheat (cont'd)

Category and Variety	Years Tested	Area 1 & 2	Area 3 & 4	Irriga- tion	Pro- tein	Resistance To										Rel. Matu- rity	Head Awne- ness	Seed Weight (mg)	Vol- ume Wt. <sup>2</sup> (kg/hL)	Ht. (cm)
						Lodg- ing	Sprout- ing	Stem Rust	Leaf Rust	Stripe Rust	Loose Smut	Bunt	Leaf Spot	FHB						
CPSR <sup>1</sup>						Yield (% Carberry)										Relative to Carberry				
Conquer VB	5	116	124	---	---	F	P	VG	G	G	P	VG	F	P	-1	Y	+8.3	+1.9	+8	
AC Crystal	6	111	119	100	---	VG	P	VG	P	VP	P	VG	F	VP	+1	Y	+5.6	-1.3	+1	
Enchant VB	4	109	116	---	-1.6	F	G	G	VG	VP	G	VG	P	VP	-2	Y	+15.5	+0.4	+1	
AAC Penhold	2	106	112	---	-1.2	VG	VG	G	VG	G	F	VG	F	G	-2	Y	+13.3	+1.7	-9	
AAC Ryley	3	104	111	---	-1.3	G	G	VG	VG	VP	F	VG	P	P	-2	Y	+11.0	-2.3	+5	
SY985	5	107	111	---	-1.4	G	P	VG	VG	---	VG	G	F	F	-3	Y	+8.8	-0.7	+3	
SY995	2	110	114	---	-2.0	G	P	G	VG	G	VP	G	P	P	-2	Y	+7.0	-2.9	+2	
AAC Tenacious VB	2	99	111	---	-1.9	F	G	G	VG	VG	VG	G	P	VG	-2	Y	+5.7	-1.9	+25	
5700PR	5	107	118	106	---	VG	F	VG	F	P	P	VG	P	P	-1	Y	+5.5	0.0	-4	
5702PR	6	118	123	---	---	G	P	F	G	P	P	F	G	P	-2	Y	+7.2	-1.1	+2	
CWGP <sup>1</sup>						Yield (% Carberry)										Relative to Carberry				
AAC Innova	4	130	131	---	-3.4	G	VP	G	VG	VG	VP	VP	F	VP	+3	Y	-0.6	-4.1	+5	
CDC NRG003	5	119	123	---	---	G	G	VG	P	---	P	VG	VP	VP	-1	Y	+3.4	-4.1	+2	
NRG010	5	120	127	---	---	G	F	VG	VG	VG	P	VG	P	P	+2	Y	+0.3	-4.3	+5	
AAC NRG097	2	116	123	---	-2.8	G	F	G	VG	VP	F	VG	F	F	+3	Y	+3.4	-1.8	+2	
Pasteur	4	127	134	---	-2.4	VG	G	G	VG	G	P	VP	F	F	+6	N	-0.1	-1.4	+5	
AAC Proclaim	3	116	130	---	-2.7	F	G	G	VG	P	G	VP	F	G	+2	Y	-2.2	-2.0	+22	
SY087	2	110	128	---	-1.4	G	F	G	G	G	P	G	F	G	+1	Y	-3.4	-1.0	+6	
WFT603	1	109	---	---	-2.6	G	P	F	F	G	F	VG	F	G	+4	Y	+5.1	-3.4	+8	
CWAD						Yield (% Strongfield)										Relative to Strongfield				
Strongfield	7	100	100	100	14.4	F	F	VG	VG	G	P	VG	F	VP	105	Y	42.1	79.2	89	
Brigade	5	107	115	110	-1.2	G	F	VG	VG	G	P	VG	F	P	+2	Y	+1.1	+0.3	+6	
AAC Cabri	1	108	---	---	-0.6	G	---	G	VG	VG	G	VG	F	P	+1	Y	0.0	+0.8	+3	
CDC Carbide VB	1	109	---	---	-0.3	F	---	VG	VG	VG	P	VG	P	P	0	Y	-1.2	0.2	+1	
AAC Current	3	100	97	---	0.0	F	F	VG	VG	G	P	G	F	VP	0	Y	+1.0	+1.0	+4	
CDC Desire	3	100	103	---	-0.2	F	G	VG	VG	G	P	VG	F	VP	-2	Y	-3.0	-0.1	0	
AAC Durafield	2	101	102	---	-0.1	F	G	VG	VG	VG	VP	VG	F	VP	0	Y	-0.5	+0.2	0	
Enterprise	5	102	103	106	-0.2	F	G	VG	VG	VG	P	G	F	P	0	Y	-3.2	+0.6	+2	
Eurostar	5	99	104	102	-0.5	F	F	VG	VG	VG	P	VG	F	P	+2	Y	+0.6	+0.8	+4	
CDC Fortitude	2	103	103	---	-0.2	G	F	G	VG	VG	P	VG	P	P	+1	Y	-2.2	0.0	-1	
AAC Marchwell VB	2	99	106	---	-0.2	F	F	VG	VG	VG	G	VG	P	P	0	Y	-2.7	-0.6	0	
AC Navigator	6	98	90	---	-0.7	G	G	VG	VG	VG	P	VG	VP	VP	+2	Y	+1.2	-0.1	-8	
AAC Raymore	3	95	99	---	+0.2	F	F	VG	VG	G	P	G	F	VP	-1	Y	-0.1	-0.1	0	
AAC Spitfire	1	109	---	---	-0.6	G	---	VG	VG	VG	P	VG	P	VP	0	Y	+1.0	-0.4	-2	
Transcend	5	102	105	93	-0.3	F	G	VG	VG	VG	P	VG	F	P	+2	Y	-1.4	0.0	+5	
CDC Verona	5	101	106	103	-0.3	G	F	VG	VG	VG	P	VG	F	P	+2	Y	+0.1	-0.2	+1	
CDC Vivid	3	103	102	---	-0.2	G	F	VG	VG	G	F	VG	F	VP	0	Y	-0.6	-0.2	0	

<sup>1</sup> Includes direct and indirect comparisons with Carberry

<sup>2</sup> multiply by 0.8 = lbs per bushel

VB = varietal blend

## ADDITIONAL INFORMATION

Producers are strongly encouraged to use a combination of the Canadian Food Inspection Agency's List of Registered Varieties [www.inspection.gc.ca](http://www.inspection.gc.ca) and the Canadian Grains Commission's Variety Designation Lists [www.grainscanada.gc.ca](http://www.grainscanada.gc.ca) to determine the registration and grade eligibility status of varieties.

Grain yield, protein content, time to maturity, seed weight, volume weight, and plant height of all varieties of common wheat and durum wheat are compared to Carberry and Strongfield, respectively.

In 2014, the spring wheat varieties supported for registration since 2009 were grown in replicated trials at 12 locations and compared to Carberry and AC Barrie. Spring wheat varieties registered prior to 2009 have been compared indirectly to Carberry using a long term comparison to AC Barrie and Katepwa.

Most varieties have been rated for their relative resistance to pre-harvest sprouting. Under wet post-maturity conditions varieties rated poor (P) have a reduced ability to retain high Hagberg Falling Number values relative to those rated good (G) or very good (VG). Varieties

with high test weight (volume weight) retain grade better under adverse harvest weather than those with low test weight. During wet harvest weather, grades drop more rapidly due to sprouting in swathed than in standing crops.

New races of leaf rust and stripe rust continue to evolve. Therefore, the rust resistance in varieties may change from year to year. The seed guide contains the most up-to-date information on rust resistance in current varieties.

## WHEAT ADDITIONAL INFORMATION (cont'd)

Early seeding may minimize risk of crop losses for varieties sown in southeastern Saskatchewan that are rated poor or very poor to leaf rust. Field scouting throughout the growing season is encouraged so that timely corrective action can be undertaken if required.

All varieties are at least moderately resistant to shattering. All varieties have moderately good resistance to common root rot.

Seed of varieties rated poor (P) and very poor (VP) for bunt and loose smut should be treated with a recommended fungicide. Please refer to the Seed Facts section of this booklet or *Guide to Crop Protection*.

All wheat and durum varieties exhibit similar susceptibility to ergot infestation.

### CANADA WESTERN RED SPRING (CWRS)

Fieldstar VB, Goodeve VB, AAC Preval VB, Shaw VB, CDC Titanium VB, Unity VB, CDC Utmost VB and Vesper VB are CWRS midge tolerant varieties. They contain the same *Sm1* gene for tolerance. To manage against the build-up of midge resistance to the *Sm1* gene, an interspersed refuge is used commercially. These varieties are not immune to wheat midge and can suffer some midge damage when high midge infestation levels occur. More information on midge tolerant wheat cultivars and interspersed refuge can be found at [www.midgetolerantwheat.ca](http://www.midgetolerantwheat.ca).

Seed of the new varieties Coleman, AAC Preval VB, CDC Titanium VB, and AAC W1876 will not be available in 2015. Limited quantities of seed of the new varieties AAC Brandon, AAC Elie, AAC Redwater, and 5605HR CL will be available in 2015.

Lillian has a solid stem and is the only spring wheat variety listed with some resistance to the wheat stem sawfly.

AAC W1876 may only be grown under contract in the Warburtons Identity Preserved Program managed by Paterson Grain and Richardson Pioneer.

CDC Abound, CDC Imagine, CDC Thrive, WR859CL, 5604HR CL, and 5605HR CL are tolerant to the CLEARFIELD® herbicides Adrenalin SC and Altitude FX.

### CANADA WESTERN HARD WHITE SPRING (CWHWS)

Limited quantities of seed of AAC Iceberg, AAC Whitefox, and CDC Whitewood will be available in 2015.

### CANADA PRAIRIE SPRING RED (CPSR)

Conquer VB, Enchant VB and AAC Tena-cious VB are CPSR midge tolerant varieties using the same *Sm1* gene as in the CWRS varieties and will be marketed with an interspersed refuge (see above). Seed of the new varieties AAC Penhold, SY995, and AAC Tena-cious VB will not be available in 2015. Limited quantities of seed of AAC Ryley will be available in 2015.

### CANADA WESTERN EXTRA STRONG SPRING (CWES)

Glencross VB is the only CWES wheat midge tolerant variety based on the *Sm1* gene and will be marketed with an interspersed refuge (see above).

### CANADA WESTERN SOFT WHITE SPRING (CWSWS)

Soft white spring wheat may be used as a feedstock in the production of ethanol. Soft

white spring wheat varieties are susceptible to pre-harvest sprouting. The leaf spot pathogens that affect other wheat classes also affect soft white cultivars and therefore recommendations for leaf spot control are similar. Seed of the new variety AAC Chiffon will not be available in 2015.

### CANADA WESTERN GENERAL PURPOSE SPRING (CWGP)

Varieties in the General Purpose market class are intended for ethanol and livestock feed purposes. Seed of the new varieties AAC In-nova, AAC NGR097 and SY087 will not be available in 2015. Limited quantities of seed of AAC Proclaim and WFT603 will be available in 2015.

### CANADA WESTERN AMBER DURUM (CWAD)

AAC Cabri, CDC Fortitude and AAC Ray-more have a solid stem with resistance to the wheat stem sawfly. CDC Carbide VB and AAC Marchwell VB are CWAD varieties with tolerance to wheat midge based on the *Sm1* gene and will be marketed with an interspersed refuge (see above). Seed of the new varieties AAC Cabri, CDC Carbide, AAC Durafeld, and AAC Spitfire will not be available in 2015. Limited quantities of seed of AAC Current, CDC Desire, CDC Fortitude, AAC Marchwell VB, AAC Raymore, and CDC Vivid will be available in 2015.

Durum wheat varieties are generally more susceptible than CWRS varieties to fusarium head blight. All durum varieties are susceptible to two new races of loose smut.

## Triticale

### Main Characteristics of Varieties

Variety	Years Tested	Yield (%)		Test Weight kg hL <sup>-1</sup>	Height (cm)	Relative Maturity	Resistance To							
		Area 1 & 2	Area 3				Lodging	Stem Rust	Leaf Rust	Bunt	Root Rot	Ergot	FHB	
Spring Habit														
Relative to AC Ultima														
AC Ultima	19	100	100	70.0	99	E	G	VG	VG	VG	VG	F	P	F
Brevis	8	110	108	+3.0	-5	E	VG	VG	VG	VG	VG	—	G	F
Bumper ☼	3	104	112	+1.4	-4	E	G	VG	VG	VG	VG	—	—	P
Bunker ☼	4	92	97	+3.0	+5	E	G	VG	VG	VG	VG	—	—	F
AC Certa	14	97	98	+3.5	+6	M	G	VG	VG	VG	VG	G	—	—
Pronghorn	19	98	100	-1.0	+6	E	G	G	VG	VG	VG	F	F	G
Sunray	6	105	100	-2.3	-1	E	G	VG	VG	VG	VG	—	G	P
Taza ☼	4	108	101	-0.6	+6	E	G	VG	VG	VG	VG	—	F	VP
Tyndal ☼	4	99	102	+3.0	-6	E	G	VG	VG	VG	VG	—	—	P
Winter Habit														
Relative to Pika														
Pika	6	100	100	68	125	E	F	—	—	—	—	—	—	—
Bobcat	6	86	86	-2.0	-25	M	G	—	—	—	—	—	—	—
Luoma ☼	5	100	96	-1.0	+1	L	F	—	—	—	—	—	—	—
Metzger ☼	5	96	101	-1.0	-14	E	G	—	—	—	—	—	—	—



### TRITICALE ADDITIONAL INFORMATION (cont'd)

Spring triticale matures 1-2 days later than **AC Andrew** CWSWS wheat, similar to **Pasteur** wheat; therefore it should be planted as early as possible. Triticale should be seeded for a target of 310 plants per square metre using verified thousand kernel weight and germination. Susceptibility to fusarium head blight is at least as great in triticale as in wheat. **AC Ultima** has an improved Hagberg Falling Number. **Brevis** is shorter and stronger straw. **Tyndal** and **Bunker** are spring forage types, and along with **Taza** have reduced awns. Winter triticale has winter hardiness equal to that of winter wheat. **Bobcat**, **Luoma** and **Metzger** have reduced awns. **Bobcat** and **Metzger** are shorter and stronger straw.

Severe infestation of ergot can occur in any of the available cultivars if environmental conditions are favourable. Even improved varieties like **Sunray** and **Brevis** produce 10-20 times more sclerotia than spring wheats.

## Winter Wheat

### Main Characteristics of Varieties

Category and Variety	Years Tested	Yield		Winter Survival	Protein (%)	Resistance To						Relative Maturity	Head Awned-ness	Seed Weight (mg)	Volume Wt. <sup>2</sup> (kg/hL)	Height (cm)
		Area 1 & 2	Area 3 & 4			Lodg-ing	Stem Rust	Leaf Rust	Stripe Rust	Bunt	FHB					
CWRW <sup>1</sup>																
CDC Buteo	14	100	100	VG	12.3	F	F	F	VP	VP	G	M	Y	34.0	81.0	91
CDC Chase	3	104	112	F	+0.3	F	VG	VG	G	VP	P	M	Y	-0.5	-0.2	+3
Emerson 🌾	3	98	---	G	+0.4	VG	VG	F	G	VP	VG	M	Y	-4.2	-0.8	-5
Flourish 🌾	6	96	102	F	+0.3	VG	F	F	F	G	VP	E	Y	+1.4	-1.7	-11
AAC Gateway 🌾	4	96	99	F	+0.6	VG	G	F	G	VP	F	M	Y	-0.5	-1.5	-14
Moats 🌾	7	103	102	G	+0.4	F	VG	VG	G	P	VP	M	Y	-0.5	-0.4	+1
CDC Osprey	14	97	101	VG	-0.2	G	P	P	VP	VP	P	M	Y	-2.6	-2.3	+2
Radiant 🌾	14	99	100	VG	-0.3	VG	VP	VP	P	VP	VP	L	Y	+1.7	-1.9	-2
CWGP <sup>1</sup>																
Accipiter 🌾	6	111	104	G	-0.9	VG	VG	F	VP	VP	P	M	Y	-4.3	-1.1	-7
Broadview 🌾	4	105	99	G	-0.8	G	VG	VG	VP	VP	VP	E	Y	-1.6	-1.6	-10
CDC Falcon	14	104	98	F	-0.8	VG	G	G	VP	VP	VP	E	Y	-3.3	-1.9	-16
Peregrine 🌾	6	116	111	VG	-1.0	F	F	G	G	VP	F	M	Y	+0.6	-1.0	+6
Pintail 🌾	3	103	---	VG	-1.7	G	P	P	G	VP	VP	M	N	-4.6	-4.6	-3
CDC Ptarmigan	9	113	111	G	-2.0	F	VP	VP	VP	VP	F	M	N	0.0	-4.6	+2
Sunrise	4	112	116	G	-1.2	G	G	G	G	VP	---	M	Y	-1.8	-4.5	-2
Swainson	4	112	120	F	-0.5	F	VG	VG	G	VP	---	M	Y	+4.6	-1.4	+5

<sup>1</sup> Includes direct and indirect comparisons with **CDC Buteo**

<sup>2</sup> Multiply by 0.8 = lbs per bushel

### ADDITIONAL INFORMATION

Seed of the new variety **AAC Gateway** is expected to be available in 2015. Seed of the new variety **CDC Chase** will not be available in 2015. **Radiant** has resistance to the wheat curl mite vector that transmits wheat streak mosaic virus. **CDC Falcon** was moved to the Canada Western General Purpose class on August 1, 2014. **CDC Ptarmigan** has a soft white kernel. **Sunrise** has a soft red kernel.

## Rye

### Main Characteristics of Varieties

Variety	Years Tested	Yield (% Prima)		Winter Survival	Resistance To		Heading Date (days) <sup>1</sup>	Maturity (days) <sup>2</sup>	Seed Weight (mg)	Volume Weight (kg hL-1) <sup>3</sup>	Height (cm)	Falling Number (seconds)
		Area 1 & 2	Area 3 & 4		Shattering	Lodging						
Prima	24	100	100	VG	F	F	June 13	August 5	33.3	71.9	119	214
Brasetto <sup>4</sup>	3	170 <sup>5</sup>	117	VG	F	---	0	+3	+0.5	-0.3	-24	+74
Hazlet	12	120	106	VG	G	VG	+1	+3	+4.5	+1.2	-12	-31
AC Remington §	10	95	93	VG	G	VG	+2	+1	-2.9	-1.3	-21	+10
AC Rifle §	24	97	88	VG	VG	VG	+3	+1	-5.2	-1.7	-34	-4

<sup>1</sup> Average heading date for each variety across the province relative to Prima. Wet and cool conditions can prolong heading beyond these dates.

<sup>2</sup> Average maturity date for each variety across the province relative to Prima. Wet and cool conditions can prolong maturity beyond these dates.

<sup>3</sup> Multiply by 0.8 = lbs per bushel

<sup>4</sup> Hybrid variety

<sup>5</sup> Limited dataset due to low number of testing locations. Relative yield data may be inflated due to 2013-14 data. Results must be interpreted with caution.

### ADDITIONAL INFORMATION

Another hybrid, tentatively named Guttino, pending approval, is expected to be registered and available for seeding in 2015.

# Malting Barley

## Main Characteristics of Varieties

Category <sup>1</sup> and Variety	Years Tested	2 or 6 Row	Rough or Smooth Awns	Yield (% AC Metcalfe)		Relative Maturity <sup>2</sup>	Resistance To										FHB
				Area 1 & 2	Area 3 & 4		Lodg- ing	Netted Net Blotch <sup>3</sup>	Spotted Net Blotch <sup>3</sup>	Spot Blotch	Scald	Loose Smut	Other Smuts	Root Rot	Stem Rust		
Malting Acceptance: Recommended																	
AC Metcalfe 🍀	11	2	R	100	100	M	G	VP	F	F	P	VG	F	F	G	F	
Bentley 🍀	7	2	R	113	112	L	G	P	VG	F	P	P	G	F	G	P	
Cerveza 🍀	6	2	R	113	115	M	G	P	G	VG	VP	VG	VG	F	G	F	
CDC Copeland 🍀	8	2	R	107	108	M	G	F	F	VP	P	P	F	F	G	F	
CDC Kindersley 🍀	7	2	R	105	107	E	G	P	G	F	VP	VP	VG	F	G	F	
CDC Meredith 🍀	7	2	R	114	112	L	G	P	VG	P	P	VG	G	F	G	F	
Merit 57 🍀	7	2	R	109	107	L	G	P	VG	P	F	VP	F	G	F	P	
Newdale 🍀	6	2	R	112	113	M	G	F	G	F	P	VP	G	G	G	F	
CDC PolarStar <sup>5</sup> 🍀	6	2	R	104	100	M	F	VP	G	P	VP	VP	VG	P	VP	G	
AAC Synergy 🍀	5	2	R	121	117	M	G	G	VG	G	VP	VP	F	F	G	P	
Celebration 🍀	7	6	S	109	107	M	VG	VP	G	G	VP	VG	VG	P	F	P	
Legacy	6	6	S	104	101	M	G	VP	G	G	P	F	G	G	G	P	
Tradition	5	6	S	112	107	M	VG	VP	F	G	P	VP	G	G	G	VP	
Other <sup>4</sup>																	
Harrington	11	2	R	95	89	M	F	VP	P	VP	P	P	P	F	P	G	
CDC Kendall 🍀	11	2	R	101	102	M	G	F	G	VP	P	P	P	G	P	F	
CDC Landis 🍀	7	2	R	109	109	M	G	F	VG	F	VP	VP	G	P	G	F	
Major 🍀	7	2	R	112	115	M	G	F	G	G	VP	VG	G	P	G	F	
CDC PlatinumStar <sup>5</sup> 🍀	3	2	R	103	105	M	F	F	G	VP	VP	VP	VG	VP	F	G	
CDC Anderson 🍀	7	6	R	107	108	M	G	P	G	VG	P	G	VG	F	G	F	
CDC Battleford 🍀	6	6	S	108	108	M	G	P	VG	VG	P	P	G	G	G	VP	
CDC Clyde 🍀	8	6	S	110	106	M	VG	F	G	VG	P	F	VG	G	G	VP	
Lacey	4	6	S	101	101	M	G	VP	F	G	P	F	G	G	G	VP	
CDC Mayfair 🍀	7	6	R	105	109	M	G	P	G	F	P	VP	VG	P	G	P	

<sup>1</sup> These categories are established annually by the Canadian Malting Barley Technical Centre (Call 204-984-4399 for more information).

<sup>2</sup> Relative maturity: The relative maturity of the check, **AC Metcalfe**, is M (on average, 91 days from seeding to swathing ripeness).

<sup>3</sup> There are two forms of net blotch, netted (*Pyrenophora teres f. teres*) and spotted (*Pyrenophora teres f. maculata*). Generally, in Saskatchewan the netted form is more prevalent.

<sup>4</sup> Although not on the CMBTC list, a malting barley market may exist for these varieties.

<sup>5</sup> **CDC PolarStar** and **CDC PlatinumStar** are available only through a closed loop Identity Preserved program offered by Prairie Malt Limited/Sapporo Breweries and their agents.

## ADDITIONAL INFORMATION

Growers are reminded that the malting and brewing industry is cautious about using new varieties. Growers are cautioned that most malting varieties, especially two-row barley, are more susceptible to sprouting.

Small scale tests are a good measure of malting potential, but are not sufficient to

determine the commercial acceptability of malting varieties. Final acceptance is given only after two years of successful plant scale evaluation. Several carload lots of barley are malted and brewed. The beer is then given the ultimate test – a taste panel. This process normally takes a minimum of three years since a crop grown in one year will

be malted in January-February, brewed in May-June, and aged and tasted in October-November of the following year.





## Recommended Malting Barley Varieties 2015-16

The following varieties of two-row and six-row malting barley are registered with the Canadian Food Inspection Agency based on good agronomic and industry malting quality evaluations. Since registration these varieties have been pilot scale tested by the CMBTC for their malting and brewing properties. All varieties listed below exhibit good malting and brewing properties. In addition to market opportunities, seeding decisions should be based on agronomic considerations and feedback from your grain company representative, local elevator operators and malting companies. *The CMBTC and its members recommend that you talk with your local malting barley buyer about opportunities in your area to grow and market two-row and six-row malting barley varieties.* Visit CMBTC's website for detailed pilot malting and brewing data - [www.cmbtc.com/CMBTC\\_Site/Variety\\_Technical\\_Data.html](http://www.cmbtc.com/CMBTC_Site/Variety_Technical_Data.html)

### Two-Row Varieties

VARIETY	MARKET COMMENTS
CDC Copeland <sub>1</sub>	Established Demand
AC Metcalfe <sub>1</sub>	Established Demand
CDC Meredith <sub>1</sub>	Limited, Increasing Demand
Bentley <sub>2</sub>	Limited, Stable Demand
CDC Kindersley <sub>1</sub>	Undergoing Commercial Market Development
Cerveza <sub>6</sub>	Undergoing Commercial Market Development
AAC Synergy <sub>5</sub>	Undergoing Commercial Market Development

#### Additional Two-Row Varieties:\*

VARIETY	MARKET COMMENTS
Newdale <sub>4</sub>	Limited, Stable Demand
CDC PolarStar <sub>2</sub>	Limited, Stable Demand
Merit 57 <sub>2</sub>	Undergoing Commercial Market Development

\*These two-row varieties are primarily handled by one company. For interest in growing Newdale, please contact Canada Malting Company. CDC PolarStar is produced in a closed loop, identity preserved program. For interest in growing CDC PolarStar, please contact Prairie Malt-Cargill. For interest in growing Merit 57, please contact BARI-Canada.

**Note:** CDC Landis is not yet grown for commercial use. Production is limited to quantities required for pre-market development testing.

### Six-Row Varieties\*\*

VARIETY	MARKET COMMENTS
Legacy <sub>3,4</sub>	Limited Demand
Tradition <sub>4</sub>	Limited Demand
Celebration <sub>2</sub>	Limited Demand

\*\*Demand for six-row malting barley has been declining. Please talk to your local malting company selector in regard to demand for six-row varieties in your area.

**Note:** CDC Anderson is not yet grown for commercial use. Production is limited to quantities required for pre-market development testing.

The following companies have pedigreed seed distribution rights for those varieties that are footnoted:

1-SeCan; 2 - CANTERRA SEEDS; 3 - Crop Production Services; 4 - FP Genetics; 5 - Syngenta; 6 - Mastin Seeds;

**CMBTC and its' members strongly recommend use of certified seed to ensure varietal purity and increase opportunity for selection.**

CMBTC Members: Parrish & Heimbecker, Prairie Malt-Cargill, Public Barley Breeders, Richardson International, Viterra, Canadian Grain Commission, ADM-Benson Quinn, SABMiller, CWB, Manitoba Liquor & Lotteries, Molson Coors, SeCan, Syngenta, Tsingtao Brewery, Alberta Barley Commission, CANTERRA SEEDS, Hailar MDL Beer Material, Alberta Agriculture, Manitoba Agriculture, Saskatchewan Agriculture, New Glarus Brewing. Other organizations providing input to this list: The BMBRI and BARI-Canada.

**Questions? Call your selector, seed company, grain handling company, or contact the CMBTC at 204-984-4399 ([cmbtc@cmbtc.com](mailto:cmbtc@cmbtc.com)).**

Canada

# Feed and Food Barley

## Main Characteristics of Varieties

Category and Variety	Years Tested	2 or 6 Row	Rough or Smooth Awns	Yield (% AC Metcalfe)		Relative Maturity <sup>1</sup>	Resistance To										FHB
				Area 1 & 2	Area 3 & 4		Lodg- ing	Netted Net Blotch <sup>2</sup>	Spotted Net Blotch <sup>2</sup>	Spot Blotch	Scald	Loose Smut	Other Smuts	Root Rot	Stem Rust		
Hulled																	
CDC Austenson 🌱	7	2	R	118	121	M	G	P	VG	G	VP	VP	VG	F	F	F	
CDC Bold	7	2	R	111	112	L	G	VP	F	VP	P	P	G	G	G	VP	
Brahma 🌱	7	2	R	114	115	M	G	VP	F	VP	P	P	VG	G	P	F	
Busby 🌱	6	2	R	104	106	E	G	P	G	P	F	VP	VG	VP	F	F	
Canmore 🌱	4	2	R	114	120	L	G	P	G	F	G	VG	VG	F	P	F	
Champion 🌱	8	2	R	117	117	M	G	VP	F	P	VP	VP	VG	G	F	F	
CDC Coalition 🌱	7	2	R	111	114	M	VG	VP	G	F	P	VG	G	F	G	F	
CDC Cowboy 🌱	6	2	R	99	105	L	F	F	G	F	P	P	G	F	G	G	
CDC Dolly	11	2	R	103	103	E	G	VP	P	VP	F	VP	F	F	P	G	
Gadsby 🌱	7	2	R	110	110	M	F	P	G	VP	VG	VG	VG	F	G	F	
CDC Helgason 🌱	7	2	R	105	106	M	G	G	G	F	P	VG	G	F	F	P	
CDC Maverick 🌱	5	2	S	100	98	M	F	F	G	F	P	VP	VG	F	G	G	
McLeod 🌱	6	2	R	108	114	M	G	VP	F	VP	P	VP	VG	F	P	F	
CDC Mindon 🌱§	7	2	R	104	103	M	G	VP	G	F	VP	VG	VG	F	F	G	
CDC Trey 🌱	5	2	R	104	110	M	G	F	VG	F	P	P	VG	G	G	F	
Xena	7	2	R	112	115	M	G	VP	F	VP	P	P	P	G	G	G	
Amisk 🌱	4	6	R	108	117	M	G	F	G	G	F	VP	P	P	G	VP	
Breton 🌱	5	6	S	108	116	M	F	F	G	G	G	P	G	F	G	VP	
Chigwell 🌱§	7	6	S	107	111	M	G	F	G	G	G	P	VG	VP	VP	VP	
Muskwa 🌱	5	6	S	111	108	M	G	P	G	G	G	P	VG	P	G	VP	
AC Rosser 🌱	11	6	S	115	115	M	G	F	G	G	VP	P	G	G	G	VP	
Sundre 🌱	5	6	S	120	116	L	G	P	F	F	VG	P	VG	P	F	VP	
Hulless																	
CDC Carter 🌱	7	2	R	94	99	M	G	F	G	F	P	VG	VG	VP	F	F	
CDC Clear 🌱	6	2	R	97	103	L	G	P	VG	F	P	VG	VG	F	G	G	
CDC McGwire 🌱	8	2	R	98	99	M	G	F	G	F	F	P	G	G	F	G	
Taylor 🌱§	7	2	R	82	87	M	VG	P	G	F	VP	VG	F	P	G	G	

<sup>1</sup> Relative maturity: The relative maturity of the check, **AC Metcalfe**, is M (on average, 91 days from seeding to swathing ripeness).

<sup>2</sup> There are two forms of net blotch: netted (*Pyrenophora teres f. teres*) and spotted (*Pyrenophora teres f. maculata*). Generally, in Saskatchewan the netted form is more prevalent.

## ADDITIONAL INFORMATION

Most available varieties are susceptible to one or more types of smut. Therefore, seed of susceptible varieties should be treated with a registered fungicide on a regular basis. Harvesting grain over 16 per cent moisture and then using aeration bins for drying can lead to sprouting and embryo death. Seed with reduced germination is undesirable for seed or malting. Two-row barley varieties are generally more resistant to shattering than six-row varieties.

### FORAGE BARLEY

**Desperado**, **Dillon**, and **AC Ranger** are six-row forage varieties. **CDC Cowboy**, **CDC**

**Maverick**, and **Stockford** are two-row forage varieties.

### HULLESS

In hulless varieties the hull is left in the field, therefore, comparable yields are 9-12 per cent lower. Hulless seed is more susceptible to damage than hulled seed, so handling should be minimized. **CDC Lophy-I** is a low phytate, hulless two-row feed variety.

### HULLESS FOOD

**CDC Alamo**, **CDC Candle**, **CDC Fibar**, and **CDC Rattan** are high beta-glucan, waxy starch varieties. **CDC Hilose** is a high beta-

glucan, high amylose starch variety. All are available for specialty markets. **CDC Carter**, **CDC McGwire**, and **Roseland** are two-row, normal starch, hulless barleys suitable for food use.

### IRRIGATION

Disease resistance, straw strength and maturity are more critical when barley is grown under irrigation. Growers should select early, strong-strawed, disease resistant varieties.

# Oat

## Main Characteristics of Varieties

Variety	Years Tested	Yield		Test Weight (g/0.5L)	% Hull	% Plump	Relative Maturity <sup>1</sup>	Height (cm)	Resistance To			
		(% CDC Dancer)							Lodging	Stem Rust	Crown Rust	Smut
CDC Dancer	8	100	100	253	19.8	86	M	103	G	F	F	VG
SW Betania	7	105	105	245	22.0	82	M	97	G	VP	P	G
CDC Big Brown	7	106	106	256	20.4	88	L	101	G	P	G	VG
CDC Boyer	8	99	100	232	23.3	66	M	105	G	F	F	P
Bradley	5	105	102	240	21.7	81	L	103	VG	P	P	VG
CS Camden	4	112	116	242	24.3	82	L	94	VG	VP	P	F
Derby	8	98	102	247	22.9	79	M	107	G	VP	VP	P
CDC Haymaker	2	80	95	225	24.9	87	VL	111	G	VP	VP	G
HiFi	6	99	97	253	22.4	68	M	103	G	F	VG	P
Jordan	7	110	118	238	22.4	93	VL	102	G	F	F	VG
AAC Justice	4	110	108	255	22.4	75	L	101	G	F	VG	VG
Leggett	7	103	104	256	22.0	82	L	96	G	F	VG	VG
Lu	6	102	103	248	25.2	58	E	99	G	VP	VP	G
CDC Minstrel	7	106	107	245	21.0	92	L	98	VG	F	P	VG
AC Morgan	8	104	108	236	25.1	82	L	101	VG	VP	VP	F
CDC Morrison	3	100	95	248	24.4	83	L	95	VG	F	VG	VG
CDC Nasser	7	109	107	233	21.8	79	VL	106	G	P	VP	VG
CDC Orrin	6	108	109	253	23.2	91	L	103	G	P	VP	VG
Pinnacle	8	113	109	244	23.6	89	VL	101	F	F	P	VG
Ronald	7	96	99	249	22.4	74	L	97	VG	F	P	VG
CDC Ruffian	5	112	111	247	20.4	88	L	95	G	VP	F	VG
CDC Seabiscuit	7	110	106	240	20.3	89	L	100	G	F	P	F
Souris	7	108	103	253	21.5	72	M	98	VG	G	VG	VG
Stride	6	111	109	255	22.9	80	L	103	G	F	VG	VG
Summit	6	103	103	256	21.6	81	M	94	G	F	VG	VG
Triactor	7	114	118	240	22.8	80	L	9	G	VP	G	F
CDC Weaver	7	108	111	245	19.2	88	L	104	F	F	P	VG

<sup>1</sup> Maturity Rating M = 96 days

### ADDITIONAL INFORMATION

Although disease pressure is lower in eastern Saskatchewan than in Manitoba, crown rust races capable of attacking most varieties, except **CDC Big Brown**, **HiFi**, **AAC Justice**, **Leggett**, **CDC Morrison**, **Souris**, **Stride**, **Summit**, and **Triactor** are increasing in southeast Saskatchewan. Early seeding will reduce the likelihood of severe infection.

Producers growing oats for the milling market are advised to check the "approved" varieties list available from the various oat millers.

False wild oats, or fatuoids, are off-types within common oat fields that have an ap-

pearance similar to wild oat, most noticeably, a prominent, dark awn and increased hairiness at the base of each floret. They are thought to result from the infrequent cross-pollination between common oat (*Avena sativa*) and true wild oat (*Avena fatua*). As such, their presence will likely be observed more often in fields planted from farm-saved seed. They have been reported within fields of common oat at rates up to 1 per cent and occur within all oat varieties.

### FEED OAT

**CDC SO-I** and **CDC Nasser** are specialty feed oat varieties with higher digestible energy for cattle.

### FORAGE OAT

**CDC Baler**, **CDC Haymaker** and **Murphy** are forage oat varieties available for annual forage production in Saskatchewan.

### HULLESS OAT

**Bullion** and **AC Gwen** are hullless varieties available for production in Saskatchewan. The hull is part of normal oat yield, thus hullless types yield less. They are difficult to handle and store and should be stored at less than 12 per cent moisture.



## OTHER CROPS

### BUCKWHEAT

Buckwheat is sensitive to high temperatures and dry weather conditions in the blossom stage, which can reduce seed set and yields. New self-pollinated varieties are being released. Buckwheat is very susceptible to frost at all stages of growth. Delayed seeding is advisable to avoid spring frost.

### CARAWAY

Caraway is a biennial spice crop, producing seed in the second year and sometimes in the third year. Seedlings are small, slow in developing and compete poorly with weeds. The crop is usually swathed because of its indeterminate growth habit and seed shattering. For more information, consult the Saskatchewan Agriculture publication, *Caraway*.

### CORIANDER

Coriander is an annual spice crop. Seedlings are small, slow to develop, and compete poorly with weeds. The large seeded type is earlier maturing than the small seeded type. **CDC Major** is a large-seeded coriander variety and **CDC Minor** is a small-seeded variety. The crop is usually straight-cut to avoid wind damage in swaths. For more information, consult the Saskatchewan Agriculture publication, *Coriander*.

### FENUGREEK

Fenugreek is a leguminous spice crop adapted to dryland conditions in the Dark Brown and Brown Soil Zones. The crop should be seeded early to avoid yield and quality loss from fall frost. Contract production is advisable, as markets are limited. For more information, consult the Saskatch-

ewan Agriculture publication, *Fenugreek in Saskatchewan*.

### SAFFLOWER

Safflower is an annual oilseed or birdseed crop which can be grown successfully in the Brown Soil Zone. Safflower must be sown early (late April).

**Saffire** matures in about 120 days. Seed should be planted shallow but into a firm, moist seedbed at about 30 kg/ha (27 lbs/ac). **Saffire** has moderate resistance to sclerotinia head rot and alternaria leaf spot. Contract production is advised.

**AC Sunset** has the earliness of **Saffire** combined with higher oil content and resistance to sclerotinia head rot.

## Canaryseed

### Main Characteristics of Varieties

Variety	Type	Site Years Tested	Yield <sup>1</sup> (%)	Days to Heading	Days to Maturity	Height (cm)	Test Weight (kg/hL) <sup>3</sup>	Seed Weight (g/1000)
Relative to CDC Bastia								
CDC Bastia	glabrous	37	100	59	98	101	70.7	7.8
CDC Calvi <sup>2</sup>	glabrous	23	110	+2	+3	+5	+0.5	+0.3
Cantate	hairy	37	117	+1	+3	-1	-5.4	-0.2
Keet	hairy	37	125	+4	+2	+4	-5.7	-0.2
CDC Maria <sup>§</sup>	glabrous	37	84	0	0	-2	-0.4	0.0
CDC Togo <sup>¶</sup>	glabrous	37	96	+1	0	-2	-1.2	+0.5

<sup>1</sup> Yield data not collected by Area

<sup>2</sup> 2011-2014 yield data; other varieties 2007 -2014

<sup>3</sup> multiply by 0.8 = lb per bushel

### ADDITIONAL INFORMATION

The seed of annual canarygrass, more commonly called canaryseed, is used as food for caged and wild birds. **Elias** pedigreed seed has not been produced in recent years. Seed hulls of **CDC Bastia**, **CDC Calvi**, **CDC Maria**, and **CDC Togo** do not have the small sharp hairs that cause irritation when canaryseed is threshed and handled and are called glabrous. **CDC Calvi**, a new, higher yielding, glabrous variety was registered in 2013. Seed of **CDC Calvi** will not be available in 2015.

Canaryseed plants have a dense, shallow root system and growing the crop on sandy soils is not recommended. Canaryseed may be grown successfully on stubble, providing adequate moisture is available for rapid germination and emergence. The recommended seeding rate is 34 kg/ha (30 lb/ac) with germination greater than 85 per cent.

Reduced emergence might be expected if canaryseed is seeded below 5 cm.

Canaryseed is subject to damage by English grain aphid and bird cherry oat aphid. Aphid populations build up rapidly on leaves, stems and head of the plant in July and August and may require an insecticide application to prevent yield loss. Information from the United States indicates that infestations of 10 to 20 aphids on 50 per cent of the stems prior to soft dough stage may cause enough damage to warrant insecticide application. The aphids often hide in the dense head of the canaryseed plant. Damage may occur at populations below these levels.

Canaryseed leaf mottle is a foliar disease that can cause yield losses. Leaf mottle is caused by a fungus, *Septoria triseti* that only affects canaryseed. The disease is in-

conspicuous at early stages because there is little visual contrast between healthy and diseased leaf area. Stubble borne inoculum is the source of infection, thus crop rotation is key in limiting the severity of leaf mottle.

Canaryseed is resistant to shattering. It may be straight-combined or swathed when fully mature. For more information on canaryseed, consult the Saskatchewan Agriculture publication, *Canaryseed*.

# General Seed Facts

## PEDIGREED SEED

Use certified seed regularly. This assures that the seed has high genetic purity, high germination and is relatively free from weeds and other crop seeds.

## RE-USE OF HYBRID SEED

Seed grown from a hybrid variety (regardless of crop or variety) should not be re-used since a 20 to 25 per cent yield reduction can occur in the next generation. This reduction is due to loss of hybrid vigour and possible occurrence of male-sterile plants. Lack of uniformity for maturity and quality traits can also occur.

## SEED CLEANING

Seed should be cleaned carefully to remove weed seeds, trash, small or broken kernels, ergot and sclerotia. Not all seed-cleaning plants are equipped to clean grain to acceptable seed standards.

## SEED TREATMENT

Various fungicides have been registered for the control of seedling diseases caused by soil- and seed-borne pathogens.

Use of seed from cereal crops infected with *Fusarium* may result in poor emergence. Such seed should be treated with a registered fungicide before planting. Use of infected seed may introduce *Fusarium* diseases into unaffected areas. Tolerance for *Fusarium* vary with species. Refer to Saskatchewan Agriculture publication, *Guidelines for Seed-Borne Diseases of Cereal Crops*.

Smuts that attack wheat, barley, oat and rye can be controlled by seed treatment. If seed from a crop in which bunt or smut was observed must be used for seed, seed should be tested and seed treatment should be considered. If the presence of smut is uncertain, varieties rated very poor should be treated every year, those rated poor every second year and those rated fair every third year.

Only systemic fungicides will control true loose smut of barley and wheat, and stem smut of rye. Pathogens causing the other types of smut (covered, false loose, oat smut and bunt) are carried on the outside of the seed and

can be controlled by non-systemic seed treatments.

The virulent form of blackleg of canola is widespread in Saskatchewan. Seed treatment with a recommended fungicide can reduce the level of disease. Use of canola seed commercially coated with an appropriate seed treatment is a convenient alternative to on-farm seed treatment.

Wireworms that attack all grain crops, and flea beetles that attack canola and mustard, can be controlled by seed treatment with insecticides.

Read the label carefully before using any seed treatment or insecticide. Information on their use and recommended rates is found in the Saskatchewan Agriculture publication, *Guide to Crop Protection*. Carryover stocks of treated seed should be tested for germination before planting. Treated seed must not be delivered to an elevator or used for feed.

## SEED-BORNE DISEASES OF PULSES

Pulse growers should use seed that has been tested for seed-borne diseases such as ascochyta, anthracnose and botrytis. Tolerances for seed infection vary with the pulse crop, the disease, weather conditions of the region and the availability of a seed treatment. If infection of the crop from sources other than seed is likely, using seed with low infection levels becomes less important.

In regions with frequent rainfall and high humidity, tolerances will be lower. Thus, for ascochyta blight of lentil, use of seed with up to 5 per cent seed infection is acceptable in the Brown and Dark Brown Soil Zones, but 0 per cent is desirable in the Black Soil Zone. A seed treatment for ascochyta-infected lentil seed is available and is recommended if seed infection levels approach 5 per cent. In pea, up to 10 per cent seed infection with ascochyta is acceptable. In chickpea, 0 per cent ascochyta seed infection is recommended because of the high rate of transmission of the disease from the seed to the emerging seedlings and its highly destructive nature. Refer to Saskatchewan Agriculture publication, *Guidelines for Seed-Borne Diseases of Pulse Crops*.

## CROP ROTATION

Seeding into stubble of the same crop kind will increase disease risk, particularly in higher rainfall areas. Residue of infected crops may harbour disease pathogens. Maintain a diverse crop rotation.

## ERGOT

Ergot attacks all varieties of rye, triticale, wheat and barley, as well as most common grass species. Oat is rarely attacked and all broadleaf species are immune. Grain containing 0.1 per cent ergot is considered poisonous and should not be used for food. Refer to the Saskatchewan Agriculture publication *Ergot of Cereals and Grasses*.

## SEED INOCULATION

Legume crops obtain much of their nitrogen requirement by forming a symbiotic association with soil bacteria called *Rhizobium*. These bacteria colonize the roots to form structures called nodules where they fix nitrogen for the legume plant. To enhance nitrogen fixation, the legume crop seed should be inoculated. **Use the proper strain of bacteria specific to that crop.** For further details, consult the *Pulse Production Manual* (Saskatchewan Pulse Growers).

## DAMP AND FROZEN SEED

Seed which is stored damp or tough may be low in germination and may lack adequate vigour. Grain which will be used for seed should be dried, if necessary, soon after harvest. The drying temperature should be below 37°C for batch driers and 43°C for recirculating and continuous driers. Frozen grain should always be tested for germination by a seed-testing laboratory before planting. Such grain will frequently produce a high percentage of abnormal seedlings.

## WHEAT MIDGE

All wheat classes, including durum and triticale, are susceptible to wheat midge. Farmers in infested areas should be prepared to spray fields with recommended insecticides if necessary. Consider the use of midge-tolerant varieties. Refer to the Saskatchewan Agriculture publication, *Wheat Midge*.

The Saskatchewan Advisory Council on Grain Crops (SACGC) and the Saskatchewan Variety Performance Group (SVPG) coordinate, supervise and review the collection, analysis and reporting of information in this booklet. Membership consists of representatives from:

- Saskatchewan Ministry of Agriculture
- Seed Companies
- Saskatchewan Seed Growers Association
- Producer Associations
- Agriculture and Agri-Food Canada
- Crop Development Centre
- University of Saskatchewan
- Saskatchewan Crop Insurance Corporation

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# PULSE CROPS

## Lentil

### Main Characteristics of Varieties

Market Class	Variety	Herbicide Tolerance <sup>1</sup>	Years Tested <sup>2</sup>	Yield (% CDC Maxim)		Height (cm)	Days to Flower	Maturity Rating <sup>3</sup>	Resistance To		Seed Coat Colour	Cotyledon Colour	Seed Weight (g/1000)
				Area 1 & 2	Area 3 & 4				Ascochyta Blight	Anthrax-nose Race 1			
Small Red	CDC Maxim	CL	8	100	100	34	51	E/M	G	G	gray	red	40
	CDC Cherie		5	109	106	32	51	E/M	G	F	gray	red	39
	CDC Dazil	CL	7	104	98	33	53	E/M	G	F	gray	red	35
	CDC Imax	CL	8	96	82	35	51	E/M	G	F	gray	red	45
	CDC Impact	CL	6	80	76	30	47	E	G	P	gray	red	34
	CDC Impulse	CL	5	108	95	37	52	E/M	G	G	gray	red	44
	CDC Red Rider		6	95	85	34	52	E/M	G	F	gray	red	45
	CDC Redberry		6	97	99	34	50	E/M	G	G	gray	red	42
	CDC Redcliff		7	107	103	35	51	E/M	G	F	gray	red	38
	CDC Redcoat		6	105	93	33	50	E/M	G	G	gray	red	39
Extra Small Red	CDC Rouleau		6	96	93	33	52	M	G	G	gray	red	37
	CDC Scarlet		6	105	103	35	53	E/M	G	F	gray	red	36
	CDC Impala	CL	6	94	91	30	51	E	G	G	gray	red	31
	CDC Imperial	CL	6	84	79	30	49	E	G	G	gray	red	30
	CDC Redbow		6	102	99	30	49	E	G	G	gray	red	32
	CDC Rosebud		6	100	99	30	50	E	G	G	tan	red	31
	CDC Rosie		6	92	90	33	52	E/M	G	G	gray	red	30
	CDC Roxy		4	103	102	34	53	E/M	G	G	gray	red	32
	CDC Ruby		7	90	91	30	48	E	G	G	gray	red	29
	CDC KR-1		8	110	92	37	52	M	G	G	gray	red	56
Large Red	CDC KR-2	CL	4	105	85	37	52	M	G	G	gray	red	55
	CDC Invincible	CL	6	96	83	33	49	E	G	G	green	yellow	34
Small Green	CDC Milestone		6	91	84	31	49	E	G	VP	green	yellow	37
	CDC Viceroy		6	97	98	34	49	E	G	G	green	yellow	33
Extra Small Green	CDC Asterix		7	99	101	30	48	E	G	F	green	yellow	26
Medium Green	CDC Impress	CL	6	87	71	34	50	M	G	P	green	yellow	52
	CDC Imigreen	CL	7	78	71	44	50	M	G	VP	green	yellow	57
	CDC Meteor		6	102	89	34	50	M	G	VP	green	yellow	51
	CDC Richlea		6	93	80	35	50	M	VP	VP	green	yellow	51
Large Green	CDC Greenland		7	89	70	38	52	M/L	G	VP	green	yellow	64
	CDC Greenstar		5	101	78	40	52	M/L	G	F	green	yellow	73
	CDC Impower	CL	7	85	68	41	52	M/L	G	VP	green	yellow	64
	CDC Improve	CL	6	87	76	39	51	M	F	VP	green	yellow	67
	CDC Plato		6	87	77	38	52	M/L	G	P	green	yellow	62
	CDC Sovereign		6	83	77	40	52	L	G	P	green	yellow	66
French Green	CDC LeMay		6	84	80	35	48	E	F	VP	green marble	yellow	33
	CDC Marble		6	107	103	36	49	E	G	F	green marble	yellow	34
	CDC Peridot	CL	6	84	94	37	48	E	F	P	green marble	yellow	38
Green Cotyledon	CDC QG-1		5	80	65	42	51	M	F	F	green	green	49
	CDC QG-2		5	91	94	40	48	E	F	F	green marble	green	32
	CDC QG-3	CL	4	73	-	38	53	E/M	F	G	green	green	46
Spanish Brown	CDC SB-1		4	76	81	35	48	E	F	F	gray dotted	yellow	37
	CDC SB-2		5	95	85	37	49	E	G	G	gray dotted	yellow	37

<sup>1</sup> CL indicates Clearfield variety.

<sup>2</sup> Co-op and Regional Trials in Saskatchewan since 2006. Comparisons to the check variety, small red lentil CDC Maxim CL.

<sup>3</sup> Maturity ratings: Normal maturity range in days based on May 1 seeding is E = 100, VL = 110 but maturity can be much earlier in dry years, much later in cool wet years. See Page 2 for more information on maturity range in lentil.

#### ADDITIONAL INFORMATION

Seed supplies may be limited for CDC Greenstar, CDC Marble, CDC Scarlet, CDC Rosie and CDC Asterix. Seed supplies will be limited for CDC Impulse and CDC Roxy.



# Field Pea

## Main Characteristics of Varieties

Variety	Years Tested <sup>1</sup>	Yield (% CDC Golden)			Leaf Type <sup>2</sup>	Relative Maturity	Lodging <sup>3</sup> (1-9)	Vine Length (cm)	Resistance To							Seed Weight (g/1000)	
		1, 2 & South 3	North 3 & 4	Irrigation					Mycosphaerella Blight	Powdery Mildew	Fusarium Wilt	Seed Coat Breakage	Bleaching	Seed Coat Dimpling <sup>4</sup>	Greenness <sup>5</sup>		
Yellow																	
CDC Golden	12	100	100	100	SL	M	4.5	75	5.0	VG	F	G	n/a	G	G	230	
Abarth 🌻	4	104	116		SL	M	3.5	75	5.0	VG	F	F	n/a	G	G	280	
DS Admiral 🌻	6	86	100	89	SL	E	4.5	80	5.0	VG	F	G	n/a	G	G	240	
Agassiz 🌻	10	107	115	112	SL	M	4.5	85	5.0	VG	F	G	n/a	F	G	230	
CDC Amarillo	6	110	126	115	SL	M	3.5	85	4.5	VG	G	F	n/a	F	G	230	
Argus 🌻	5	100	109	107	SL	M	4.0	80	5.5	VG	F	F	n/a	F	G	230	
AAC Ardill	4	111	117		SL	M	3.5	85	4.5	VG	G	G	n/a	G	G	230	
CDC Bronco	8	101	101	96	SL	M	4.5	75	4.5	VG	F	G	n/a	G	G	230	
CDC Centennial	5	99	110	110	SL	E	5.5	70	5.0	VG	F	G	n/a	G	F	270	
Cutlass	11	94	99	93	SL	M	5.0	75	5.0	VG	F	F	n/a	F	G	220	
Delta	4	86	89	---	SL	E	5.5	70	5.5	P	---	G	n/a	---	---	250	
Earlstar 🌻	4	99	113		SL	E	5.0	80	5.0	VG	F	F	n/a	G	G	210	
Eclipse	11	90	96	95	SL	M	4.0	80	5.0	VG	P	G	n/a	F	G	250	
CDC Hornet	8	100	105	101	SL	M	4.0	85	4.5	VG	F	F	n/a	G	G	220	
AAC Lacombe 🌻	3	110	122		SL	M	3.5	85	5.0	VG	F	F	n/a	F	F	240	
CDC Meadow	12	100	109	101	SL	E	4.0	85	5.0	VG	F	G	n/a	G	G	220	
CDC Mozart	7	96	99	101	SL	M	5.5	70	4.5	VG	F	G	n/a	G	F	220	
Polstead	8	94	103	101	SL	M	5.0	75	5.0	VG	P	F	n/a	G	F	280	
CDC Prosper	8	92	99	82	SL	E	4.5	80	5.0	VG	G	G	n/a	F	G	150	
Reward 🌻	5	90	105	101	SL	M	4.0	90	5.0	VG	F	G	n/a	G	F	240	
CDC Saffron	7	106	114	100	SL	M	4.0	80	4.5	VG	F	G	n/a	F	G	250	
Sorento 🌻	7	93	101	106	SL	M	5.5	80	5.0	VG	F	G	n/a	F	G	260	
Thunderbird 🌻	6	98	104	101	SL	M	4.0	85	5.0	VG	F	G	n/a	G	F	220	
CDC Treasure	9	97	109	104	SL	E	4.0	80	5.0	VG	F	F	n/a	F	G	210	
Green																	
Cooper 🌻	11	99	100	95	SL	L	4.0	80	5.0	VG	F	F	G	G	n/a	270	
CDC Greenwater	5	110	112		SL	L	3.5	90	4.0	VG	G	G	G	F	n/a	230	
CDC Limerick	6	104	109	101	SL	L	3.5	85	4.0	VG	F	VG	G	G	n/a	210	
CDC Patrick	10	95	104	97	SL	M	4.5	80	4.5	VG	G	G	G	G	n/a	190	
CDC Pluto	6	102	102	102	SL	M	5.5	80	4.5	VG	F	G	G	G	n/a	160	
CDC Raezer	7	91	104	104	SL	M	3.5	85	5.0	VG	G	G	G	G	n/a	220	
CDC Sage	5	81	88	82	SL	M	4.0	80	5.0	VG	G	G	G	F	n/a	220	
SW Sergeant	5	81	85	85	SL	M	4.0	80	5.0	VG	F	G	G	G	n/a	200	
CDC Striker	12	89	101	94	SL	M	3.5	80	4.5	P	G	VG	G	G	n/a	240	
CDC Tetris	8	99	113	98	SL	L	4.0	85	4.5	VG	G	G	G	G	n/a	210	
Maple																	
CDC Acer	3	93	92	---	SL	L	6.5	60	5.0	VG	---	G	n/a	VG	n/a	170	
CDC Mosaic	4	90	92	65	SL	L	4.0	85	4.5	VG	---	G	n/a	VG	n/a	180	
CDC Rocket	3	86	101	94	SL	M	6.0	75	5.0	VG	---	G	n/a	VG	n/a	210	
Dun																	
CDC Dakota	5	115	124	110	SL	M	3.5	85	4.5	VG	---	G	n/a	VG	n/a	205	
Forage																	
40-10	3	75	82	52	N	L	8.5	120	4.5	P	---	G	n/a	G	---	140	
CDC Horizon	4	97	98	70	SL	M	4.5	90	4.5	VG	---	G	n/a	G	G	170	
CDC Leroy	3	91	93	84	SL	M	5.0	95	4.5	VG	---	G	n/a	G	G	150	
Trapper	7	63	66	---	N	L	8.5	115	5.0	P	---	G	n/a	---	---	130	
CDC Tucker	3	91	97	83	SL	M	4.0	100	4.5	VG	---	G	n/a	G	F	170	

<sup>1</sup> Co-op and regional trials in Saskatchewan

<sup>2</sup> N = normal leaf type; SL = semi-leaffless

<sup>3</sup> Lodging score (1-9) where 1 = completely upright, 9 = completely lodged

<sup>4</sup> Seed coat dimpling: VG = 0-5%; G = 6-20%; F = 21-50%

<sup>5</sup> Greenness: Good = 0-15%; Fair = 16-40%

## FIELD PEA ADDITIONAL INFORMATION (cont'd)

The following varieties have purple flower colour and pigmented seed coats: **CDC Acer**, **CDC Mosaic**, **CDC Rocket**, **CDC Dakota** and **40-10**. **CDC Acer**, **CDC Mosaic**, and **CDC Rocket** have a maple patterned seed coat, **40-10** has a speckled seed coat, while **CDC Dakota** has a solid dun (tan) coloured seed coat. All other varieties have white flower colour and non-pigmented seed coats. For detailed production information consult the *Pulse Production Manual* published by Saskatchewan Pulse Growers. The relative maturity of the check variety **CDC Golden** is M (Medium), which is on average 90 days from seeding to swathing ripeness. Please add 3-4 days for each rating beyond Medium. As harvest proceeds into the fall, these ranges expand.

## Chickpea

### Main Characteristics of Varieties

Market Class	Variety	Years Tested	Yield (% Amit (B-90))		Ascochyta Blight <sup>2</sup>	Height (cm)	Days to Flower	Maturity	Seed Weight (g/1000)	Seed Shape <sup>3</sup>	Seed or Seed Coat Colour <sup>4</sup>
			Area 1 <sup>1</sup>	Area 2 <sup>1</sup>							
Kabuli	Amit (B-90) ☼	13	100	100	4.4	47	57	L	258	Ro	B
	CDC Alma	6	90	94	6.1	42	54	L	370	RH	B
	CDC Frontier	13	108	104	4.4	45	56	L	349	RH	B
	CDC Leader	9	110	107	4.5	42	55	M	392	RH	B
	CDC Luna	12	97	100	5.7	40	54	M/L	370	RH	B
	CDC Orion	8	108	107	5.0	45	51	L	439	RH	B
Desi	CDC Palmer ☼	4	108	105	4.8	44	53	M/L	424	RH	B
	CDC Consul (603-3)	7	112	110	4.0	46	53	M	303	P	LT
	CDC Corinne	12	114	110	4.2	40	56	M	245	A/P	T
	CDC Cory	6	112	105	4.2	48	57	M	270	A/P	T
	CDC Vanguard	12	107	108	4.8	39	53	M/L	224	P	T

<sup>1</sup> Area 1: Brown soil zone; Area 2: Dark Brown soil zone

<sup>2</sup> Ascochyta Blight at pod filling period: 0-9 scale; 0 = no symptom; 9 = plants are completely blighted. Scores 4-6 are considered fair.

<sup>3</sup> Seed shape: Ro = Round; RH = Ram-head; P = plump; A = angular

<sup>4</sup> Seed or seed coat colour: B = beige; LT = light tan; T = tan.

## ADDITIONAL INFORMATION

Please refer to *2015 SaskSeed Guide* for pedigreed seed availability. For more details on production consult the *Pulse Production Manual* published by the Saskatchewan Pulse Growers ([www.saskpulse.com](http://www.saskpulse.com)).

## Dry Bean

### Main Characteristics of Varieties

Market Class	Variety	Years Tested <sup>1</sup>	Yield (% CDC Pintium)			Days to Flower	Maturity Rating <sup>2</sup>	% Pod Clearance <sup>3</sup>	Seed Weight (g/1000)	Growth Habit <sup>4</sup>
			Irrigation	Area 2	Area 3					
Pinto	CDC Pintium	13	100	100	100	50	E	85	350	I
	Island	7	120	114	101	55	M	79	355	II
	Mariah ☼	5	114	115	94	55	L	82	293	II
	Winchester	5	116	111	109	52	M	82	352	II
	CDC Marmot	5	112	115	116	50	E	80	367	I
	CDC WM-2 ☼	8	116	109	105	52	E	79	365	II
Navy	Envoy	13	83	87	84	53	M	77	184	I
	Lightning	7	109	95	90	60	L	85	175	II
	Skyline ☼	5	74	95	92	57	L	80	163	I
	OAC Spark	6	88	101	101	55	L	81	163	I
Great Northern	AC Polaris	7	97	102	95	52	L	70	310	III
	AC Redbond	8	98	103	99	51	M	65	290	II
Small Red Black	CDC Blackcomb	7	115	99	95	56	M	85	167	II
	Carman Black	5	125	115	112	59	M	88	180	II
	CDC Jet	13	96	97	92	58	L	85	170	II
	CDC Superjet	6	-	-	102	58	L	85	170	II
Shiny Black	AC Black Diamond	7	102	94	94	54	M	70	250	II
Yellow	CDC Sol ☼	7	107	93	86	55	L	78	399	I

<sup>1</sup> Co-op and regional trials grown in narrow rows. Direct comparisons to **CDC Pintium** since 2002.

<sup>2</sup> Maturity ratings based on E = 100 days; L = 110 days for May 20 planting to swathing maturity. See page 2 for more information.

<sup>3</sup> Pod clearance: percentage of pods that completely clear the cutterbar at time of swathing (~4 cm).

<sup>4</sup> Growth habit: I = Determinate bush; II = Indeterminate bush; III = Indeterminate vine.

# Soybean

## Main Characteristics of Varieties

Variety	Type <sup>1</sup>	Years Tested	Yield (% 23-10RY)		Corn Heat Units <sup>2</sup>	Days to Maturity <sup>3</sup>	Seed Size <sup>4</sup> (# seeds /lb)	Hilum Colour <sup>5</sup>
			SE SK & W MB	Rest of SK & S AB				
23-10RY	RR2	3	100	100	2325	123	2313	BL
23-60RY	RR2	2	108	106	2375	128	2440	BL
Bishop R2	RR2	3	99	93	2450	124	2614	IY
LS 002R23	RR2	3	108	107	2375	124	2796	BL
LS 002R24N	RR2	2	110	111	2375	126	2796	BL
McLeod R2	RR2	3	110	110	2375	126	2268	BL
NSC Anola RR2Y	RR2	2	110	108	2350	126	2720	BL
NSC Gladstone RR2Y	RR2	2	108	107	2375	127	2570	BL
NSC Moosomin RR2Y	RR2	2	93	93	2300	121	3200	BR
NSC Reston RR2Y	RR2	3	99	99	2325	122	3369	BL
NSC Tilston RR2Y	RR2	3	106	106	2375	125	2810	BL
Pekko R2	RR2	3	99	100	2325	125	2402	BL
PS 0035 NR2	RR2	2	106	106	2375	127	2550	BL
Sampsa R2	RR2	3	99	102	2425	128	2270	BL
TH 32004R2Y	RR2	3	117	112	2425	126	3200	BL
TH 33003R2Y	RR2	3	104	105	2400	124	3000	BR
TH 33005R2Y	RR2	2	108	108	2450	129	2800	BL
Vito R2	RR2	3	96	96	2350	126	3366	GR
900Y61 ☼	RR1	3	100	98	2425	127	2468	BR
900Y71 ☼	RR1	3	108	104	2450	127	2502	TN
P001T34R ☼	RR1	2	82	78	2300	118	3138	BR

<sup>1</sup> All varieties in this table are either Roundup Ready 1 or Genuity Roundup Ready 2 Yield™

<sup>2</sup> Corn Heat Unit ratings are assigned by individual companies.

<sup>3</sup> Days to maturity was determined in Boissevain, Carberry, Hamiota, Rosthern, Saskatoon, and Melita. Longer season varieties did not fully mature at all sites.

<sup>4</sup> Number of seeds/lb as entered in the trial. Data supplied by individual companies.

<sup>5</sup> Hilum is the point where the seed attaches to the pod. BR = Brown, IY = Imperfect Yellow, BL = Black, GR = Grey, TN = Tan.

## ADDITIONAL INFORMATION

Saskatchewan test sites were Saskatoon, Floral, Yorkton, Redvers and Rosthern; Alberta test sites were Bow Island (dryland and irrigated) and Brooks (dryland); Manitoba test sites were Boissevain, Carberry, Hamiota and Roblin. Three year mean yield of the check variety 23-10RY was 43 bushels/acre. Typical on-farm yields are 25-30 bu/acre. Soybeans are not native to the Canadian Prairies and must be inoculated with soybean inoculant that contains *Bradyrhizobium japonicum* bacteria.

# Faba Bean

## Main Characteristics of Varieties

Variety	Years Tested	Yield (% CDC Fatima)	Maturity (days)	Seed Weight (g/1000)
<b>Coloured Flower</b>				
CDC Fatima	9	100	105	520
Taboar ☼	4	96	107	480
CDC Blitz	6	101	109	410
Florent	4	112	107	660
FB9-4	6	96	104	680
CDC SSNS-1	9	91	105	335
<b>White Flower (zero tannin)</b>				
Snowbird ☼	9	104	104	495
Imposa ☼	4	110	107	695
CDC Snowdrop	6	91	104	335
Tabasco ☼	5	101	106	530

## ADDITIONAL INFORMATION

Faba bean regional trials began in 2006 to accommodate growing interest in this crop as a nitrogen-fixing, high protein food and feed grain in moist areas. White-flowered types are zero tannin. All coloured flower types have seed coats that contain tannins and may be suitable for export food markets if seed size and quality match customer demand. Maturity ratings are based on days until swathing, but will vary depending on seeding date.



# OILSEED CROPS

## Flax

### Main Characteristics of Varieties

Variety	Years Tested	Yield <sup>1</sup>			Relative Maturity <sup>2</sup>	Seed Size <sup>3</sup>	Resistance To		
		Area 1 & 2	Area 3 & 4	Irrigation			Lodging	Powdery Mildew <sup>4</sup>	Fusarium Wilt <sup>4</sup>
CDC Bethune ☼	10	100	100	100	L	M	G	MR	MR
AAC Bravo ☼	2	99	104	99	L	L	G	MR	MR
CDC Glas ☼	5	103	110	93	L	M	G	MR	MR
Hanley ☼	4	90	90	93	M	M	G	MR	R
Lightning ☼	6	92	92	93	L	M	G	MR	R
Prairie Blue ☼	4	99	92	97	L	S	VG	MR	MR
Prairie Grande ☼	6	92	94	92	M	M	VG	MR	MR
Prairie Sapphire ☼	3	96	102	100	L	M	G	MR	MR
Prairie Thunder ☼	8	95	95	98	M	M	VG	MR	R
CDC Neela ☼	5	101	108	95	L	M	G	MR	MR
CDC Sanctuary ☼	7	103	101	96	L	M	F	MR	MR
CDC Sorrel ☼	8	100	101	92	L	L	G	MR	MR
Taurus ☼	6	94	99	94	M	M	G	R	MR
Vimy	10	94	90	85	M	L	P	MS	MR
Westlin 70	3	93	103	95	L	M	G	MR	MR
AC Watson \$	6	88	93	92	M	M	G	R	MR

<sup>1</sup> Data from Regional and Coop yield trials.

<sup>2</sup> Relative maturity: The relative maturity of the check, **CDC Bethune**, is L (on average 101 days from seeding to swathing ripeness).

<sup>3</sup> Seed size: S = Small, M = Medium, L = Large.

<sup>4</sup> Resistance Scale: MS = Moderately Susceptible, MR = Moderately Resistant, R = Resistant.

### ADDITIONAL INFORMATION

Flax was last tested in 2014. All varieties are immune to rust. All variety descriptions other than yield are based on data from the Flax Co-operative Trials in the Prairie Provinces. The Flax Council of Canada's Triffid Stewardship Program recommends the testing of all flax seed intended for planting, and only flax seed which tests negative for the presence of Triffid be planted. All flax producers should be aware that the Crop Development Centre and SeCan have cooperated in the effort to re-constitute flax breeder seed which is free of genetic modification (i.e. Triffid). Supplies of certified seed, produced from re-constituted breeder seed, of **CDC Bethune**, **CDC Sorrel**, **CDC Sanctuary** and **CDC Glas** are expected to be good for 2015. Frozen flax straw should be analyzed by a feed testing laboratory to determine that it is free of prussic acid before using it as livestock feed.

## Wheat Height Varies

By Dr. Ron DePauw, AAFC; Jim Downey, SeCan and Mitchell Japp, Saskatchewan Agriculture

Contrary to popular belief, it is perfectly normal and acceptable to have some plants taller than average in a wheat field. Just because the field does not look "tabletop flat" does not mean that your seed was contaminated with another variety.

Many Canada Western Red Spring (CWRS) and Canada Prairie Spring (CPS) semi-dwarf wheat varieties have "talls" that occur normally. The same is true of all spring and winter wheat market classes. The genes that are responsible for reduced height in wheat are subject to a chromosome mis-division called "aneuploidy".

Aneuploidy can produce 5 to 20 tall off-types per 10,000 spring wheat plants. The off-types can occur in each generation, so the occurrence may increase as seeds from tall plants are planted.

These tall off-types are noticed every year, but they seemed to be more prevalent in 2014,

which may be due to optimum moisture conditions during stem elongation in late June and early July.

Even a relatively cursory examination of any plant-stand reveals that some plants are taller and some are shorter. Until fairly recently, virtually all CWRS varieties were awnless and tall. There was, and is, variation and there are both taller and shorter plants which were not observed. This is because almost no one, except perhaps breeders and other scientists, was looking for them.

When all of the tillers of a plant are tall, it is either aneuploidy or a varietal contamination. The practices that pedigreed seed growers undertake to maintain genetic purity and the pedigreed seed crop inspections conducted during the growing season make the occurrence of varietal contamination unlikely. Seed crop inspectors have detailed variety descriptions to determine whether a tall plant is a re-

sult of mis-division or is an unacceptable off-type.

Research conducted in Montana discovered the aneuploidy and the frequency of tall plants occurring in wheat with dwarfing genes Rht1 and Rht2. The research concluded that a low frequency of tall off-types due to chromosome mis-division is unlikely to influence cultivar performance.

Semi dwarf varieties include: **CDC Go**, **Carberry**, **Muchmore**, **Cardale**, **AAC Elie**, **AAC Brandon**, **Glenn**, **Stettler**, **Superb**, **AC Taber**, **AC Crystal**, **AC Foremost**, **5700PR**, **SY985**, **AC Andrew**, and many others.

For more information review: Storlie, E. W., H. Xie, and L.E. Talbert 1996. *Tall Off-Types in Semidwarf Spring Wheat with Height Reducing Genes Rht1 and Rht2*. Crop Science, Vol. 36:1521-1522

# Mustard

## Main Characteristics of Varieties

Type and Variety	Yield	Plant Height (cm)	Glucosinolate (μmol/g seed)	Mucilage* (cS*ml/g seed)	Volatile oil <sup>§</sup> (mg/g seed)	Fixed Oil (% seed)	Protein (% Seed)	Seed Weight (g/1000)	Maturity (days)
<b>Yellow (% AC Pennant)</b>									
AC Pennant <sup>†</sup>	100	96	148	44.7	n/a	29.5	34.3	5.7	92
AAC Adagio <sup>‡</sup>	103	103	139	96.8	n/a	30.1	33.0	5.1	94
Andante <sup>†</sup>	101	102	145	55.7	n/a	28.4	35.1	6.0	93
<b>Brown (% Duchess)</b>									
Duchess <sup>†</sup>	100	113	n/a	n/a	9.4	38.1	28.7	2.7	92
Amigo <sup>§</sup>	94	109	n/a	n/a	13.9	34.2	30.7	2.7	98
Centennial Brown <sup>†</sup>	101	117	n/a	n/a	10.4	36.3	30.1	3.1	92
<b>Oriental (% Cutlass)</b>									
Cutlass <sup>†</sup>	100	115	n/a	n/a	11.6	41.0	29.1	2.8	91
Forge <sup>†</sup>	97	125	n/a	n/a	12.2	38.9	29.6	2.6	92
AC Vulcan <sup>†</sup>	98	116	n/a	n/a	12.4	40.6	29.5	2.9	91

<sup>†</sup> Data from 1999-2012 Co-operative Mustard Test. Yield % of check: 124 station years for yellow mustard, and 117 station years for brown and oriental mustard.

<sup>‡</sup> Data from 2009-2012 Co-operative Mustard Test (29 station years).

<sup>§</sup> Data from 2008-2010 Co-operative Mustard Test (21 station years).

\* Mucilage in yellow mustard is a measurement of viscosity of aqueous extracts from seed.

<sup>§</sup> Volatile oil = allyl glucosinolate.

### ADDITIONAL INFORMATION

Three types of mustard are grown in western Canada: yellow (*Sinapis alba*), and brown and oriental (*Brassica juncea*). Mustard is typically grown under contract, where the contractor specifies the variety to be grown to meet industry specifications for product quality. All mustard varieties have good resistance to blackleg disease and mature, on average, in 91 to 98 days.

**AAC Adagio** is a new yellow mustard variety in 2014. Breeder seed of **AAC Adagio** was produced in 2013.

A unique feature of yellow mustard is high mucilage content. Mucilage is valued by the

mustard industry as a stabilizer in prepared food products. **AAC Adagio** yields similarly to **Andante** but has significantly higher mucilage content (96.8 cS\*ml/g seed) than **AC Pennant** (44.7 cS\*ml/g seed) and **Andante** (55.7 cS\*ml/g seed). **AAC Adagio** has smaller seed size and lower protein content than the check variety **AC Pennant**.

Brown mustard is grown primarily for the Dijon mustard market. **Centennial Brown** has significantly higher volatile oil and protein content than **Duchess**, and it is also larger seeded than **Duchess**. **Centennial Brown** and **Duchess** are highly susceptible to white rust disease (staghead). **Amigo** is

the first brown mustard variety highly resistant to white rust race 2a, but susceptible to race 2v. **Amigo** has higher volatile oil content than **Centennial Brown** and **Duchess**. Its seed weight is somewhat lower than **Centennial Brown**.

Three varieties of oriental mustard (yellow-seeded) are available for production. **Cutlass** is the highest yielding variety. **AC Vulcan** and **Forge** have higher volatile oil content and greater protein content than **Cutlass**. **Forge** has significantly lower fixed oil content and smaller seed size than **Cutlass**.

# Canola (Small Scale Trials)

## Main Characteristics of Varieties

Variety	Distributor	Yield (bu/ac)				Maturity (days)			Height (cm)			Blackleg Rating
		Growing Season Zone <sup>1</sup>	Growing Season Zone	Growing Season Zone	Avg.	Growing Season Zone	Growing Season Zone	Growing Season Zone	Growing Season Zone	Growing Season Zone	Growing Season Zone	
		Long (2)	Mid (14)	Short (4)		Long	Mid	Short	Long	Mid	Short	
<b>Clearfield</b>												
5525 CL	BrettYoung	76	54	62	58	94	95	101	122	107	110	R
VR 9560 CL <sup>2</sup>	Crop Production Services	79	58	64	61	97	96	102	124	118	110	R
LSD <sup>3</sup>		13	9	19								
<b>Liberty Link</b>												
5440	Bayer CropScience	82	61	69	65	96	95	100	126	113	115	R
L130	Bayer CropScience	81	59	67	63	93	93	98	121	110	108	R
L252	Bayer CropScience	92	64	74	69	96	95	101	124	109	111	R
L261	Bayer CropScience	85	64	72	67	96	96	102	136	122	124	R
LSD <sup>3</sup>		14	7	9								
<b>Roundup Ready</b>												
1990	CANTERRA SEEDS	81	59	67	63	94	95	101	114	107	116	R
08H0004	Cargill - VICTORY Canola	80	59	63	62	100	98	104	130	115	112	R
09H7763	Cargill - VICTORY Canola	84	59	63	63	95	96	101	119	109	111	R
11DL30318	DL Seeds	80	57	62	60	95	95	101	121	107	113	R
6044 RR	BrettYoung	78	57	61	60	95	95	101	119	104	104	R
6060 RR	BrettYoung	77	57	63	60	98	97	103	122	108	112	R
6064 RR	BrettYoung	79	59	64	62	97	97	103	118	106	107	R
73-15 RR	DEKALB	—	—	58	50	—	—	97	—	—	99	R
73-75 RR	DEKALB	81	58	65	62	93	94	99	112	102	105	—
74-44 BL	DEKALB	82	57	63	61	94	95	100	113	105	104	R
74-54 RR	DEKALB	82	59	66	63	94	93	99	113	105	106	R
SY4114	Syngenta Canada	78	57	61	60	94	93	100	112	105	104	R
SY4135	Syngenta Canada	78	55	63	59	94	94	100	109	102	105	R
SY4157	Syngenta Canada	85	62	66	65	98	97	102	130	112	114	R
V12-1 <sup>4</sup>	Cargill - VICTORY Canola	82	60	64	63	95	95	101	118	108	108	R
V12-2 <sup>4</sup>	Cargill - VICTORY Canola	78	54	60	58	97	96	102	121	103	101	R
VR 9562 GC	Crop Production Services	82	61	68	64	94	94	100	123	112	114	R
LSD <sup>3</sup>		11	7	12								

<sup>1</sup> Long, mid and short growing seasons. The number of sites tested is included in brackets.

<sup>2</sup> Specialty oil profile and available for premium pricing.

<sup>3</sup> LSD = least significant yield difference (5% level) within herbicide system.

<sup>4</sup> Higher oil content and may be eligible for pricing premiums

## ADDITIONAL INFORMATION

### *Brassica napus* (Argentine Canola)

Argentine varieties mature two weeks later than Polish varieties and are therefore better suited to the mid- and long-season growing areas of Saskatchewan. Blackleg disease, which is now widespread in Saskatchewan, can cause severe yield losses in varieties that are susceptible. Argentine varieties are susceptible to seed shattering when left standing at full maturity. Later maturing varieties tend to produce higher levels of green seed under wet and cool conditions at harvest, which can cause substantial grade reductions. The control of herbicide tolerant canola volunteers requires good agronomic practices, such as proper crop and herbicide rotations.

### *Brassica rapa* (Polish Canola)

Polish varieties mature approximately two weeks earlier than Argentine varieties and are less likely to produce green seed. Polish

varieties are more heat and drought tolerant than the Argentine type. They are also more shatter resistant than Argentine varieties and are therefore well suited to straight combining. All current Polish varieties have poor resistance to blackleg, but blackleg is less of a threat in Polish canola because of its early maturity, which tends to reduce the impact of the disease on seed yields. Three new synthetic Polish varieties are **Early One**, **ACS-C29** and **Synergy**. All three varieties yield significantly more than their open-pollinated counterparts like **AC Sunbeam**. **Early One** and **ACS-C29** are available through Mastin Seeds, while **Synergy** and **AC Sunbeam** are available through SeCan. (Source: AAFC, Saskatoon)

### *Brassica juncea* Canola

Canola quality *Brassica juncea* is a class of canola that is especially well adapted to areas where hot, dry conditions are common.

It has very good resistance to blackleg and exhibits better heat and drought tolerance than other *Brassica napus* canola. All production is contracted.

**XCEED** Canola, available from Proven Seed, Crop Production Services in 2015, is suited to the Brown and Dark Brown growing season zones. It is compatible with the Clearfield Production System (Source: CPS).



# Canola (Large Scale Strip Trials)

## Main Characteristics of Varieties

Variety	Yield (% 73-75 RR)			
	Growing Season Zone <sup>1</sup>			
	Long	Mid	Short	Average
<b>Check</b>				
73-75 RR (yield in bu/ac)	46	45	41	45
<b>Liberty Link</b>				
5440	104 (13)	110* (21)	105 (5)	107*
L130	105* (20)	106* (37)	109 (10)	106*
L252	108* (21)	107* (34)	105 (8)	107*
L261	104* (22)	107* (27)	108 (5)	106*
<b>Roundup Ready</b>				
1990	103 (6)	103 (18)	—	102
73-15 RR	99 (5)	101 (20)	102 (6)	101
74-44 BL	105* (23)	104* (38)	104 (9)	104*
74-54 RR	102 (24)	101 (40)	105 (10)	102*

<sup>1</sup> The number of sites tested is included in brackets.

\* Indicates that the mean was significantly different than 73-75 RR (paired, two-tailed t-test).

### Least Significant Difference

When comparing average zone yields for varieties in the small plot data, the least significant difference (LSD) is about 7 to 19 bu/ac. If variety A yielded 52 bu/ac. and variety B yielded 45 bu/ac., they would be considered statistically the same. This is based on a confidence level that significant differences would occur by chance less than 5% of the time. In the small plot design used, varieties were grouped by herbicide system, which means that the LSD shown strictly applies to comparisons between varieties of the same herbicide system.

More importantly, comparisons between varieties within the same herbicide system reveal only genetic differences, whereas variety comparisons between herbicide systems compare the net effect of both genetic and herbicide effects (weed control + crop tolerance).

### Where can you get the Canola Performance Trial results?

Results are available through an online interactive tool at [www.canolaperformancetrials.ca](http://www.canolaperformancetrials.ca). The interactive tool allows growers to explore many agronomic factors and to search for trial data in specific geographic areas near their farming operations. Details on management, operations and environmental data for each individual site are reported online. The online tool has an economic calculator that includes the costs associated with growing the selected variety to assist growers in determining potential profitability. Data is also available in booklet form that will be distributed through various publications and can be obtained from your local agri-retailer.

# Sunflower

## Main Characteristics of Varieties

Variety	Herbicide Tolerance	Years Tested	Yield <sup>1</sup> (% 63A21)	Average Maturity (days)	Harvest Moisture (%)
<b>Oilseed</b>					
63A21		5	100	111	19.1
8N270 <sup>1</sup>	Clearfield®	5	90	115	26.7
Cobalt II	Clearfield®	2	85	114	27.5
<b>Oilseed EMSS (Early Maturing, Short Stature)</b>					
63A21		15	100	113	19.1
AC Sierra		5	71	107	16.7

<sup>1</sup> Three year data based on 12 locations in total.

### ADDITIONAL INFORMATION

Sunflower requires 105-125 days to mature, depending on the cultivar and the growing season. Oilseed sunflower has been grown in the Dark Brown and Black soil zones in southeastern Saskatchewan. Harvest moisture is a good indication of how quickly these hybrids will be ready to combine in the field. The EMSS varieties are adapted to production in most areas of Saskatchewan. **AC Sierra** is open pollinated and not a hybrid.

Another hybrid, tentatively named Talon with ExpressSun® trait pending approval, is expected to be registered and available for seeding in 2015.

The Saskatchewan Sunflower Committee has been conducting trials in Saskatchewan for the purpose of registration and demonstration since 1983. Sunflowers no longer require three years of yield testing to be sold in Saskatchewan. Saskatchewan Sunflower Committee will publish results from each year. For the complete data set please email or call Sherri Roberts with Saskatchewan Agriculture: [sherri.roberts@gov.sk.ca](mailto:sherri.roberts@gov.sk.ca) or (306) 848-2856.

Crop Kind, Class & Variety	Breeding Institution	Distributor	Crop Kind, Class & Variety	Breeding Institution	Distributor
<b>WHEAT</b>			<b>WHEAT (CONT'D)</b>		
<b>Canada Western Red Spring</b>			<b>Canada Western General Purpose</b>		
CDC Abound ☼	U of S - CDC	Proven Seed/CPS Canada	AAC Innova ☼	AAFC (Lethbridge)	Alliance Seed
Alvena ☼	AAFC (Swift Current)	SeCan Members	CDC NRG003 ☼	U of S - CDC	CANTERRA SEEDS
AAC Bailey ☼	AAFC (Swift Current)	CANTERRA SEEDS	NRG010 ☼	AAFC (Swift Current)	CANTERRA SEEDS
AC Barrie	AAFC (Swift Current)	SeCan Members	AAC NRG097 ☼	AAFC (Swift Current)	CANTERRA SEEDS
AAC Brandon ☼	AAFC (Swift Current)	SeCan Members	Pasleur	Warsum Plant Breeding	SeCan Members
Carberry ☼	AAFC (Swift Current)	SeCan Members	AAC Proclaim ☼	AAFC (Lethbridge)	FP Genetics
Cardale ☼	AAFC (Winnipeg)	Seed Depot	SY087 ☼	Syngenta Seeds Canada Inc.	Western Feed Grains Co-op
Coleman	U of Alberta	Lefsrud Seed	WFT603 ☼	Western Feed Grains Co-op	Western Feed Grains Co-op
AAC Elie ☼	AAFC (Swift Current)	Alliance Seed			
Fieldstar VB ☼	AAFC (Winnipeg)	SeCan Members			
Glenn ☼	NDSU	CANTERRA SEEDS			
CDC Go	U of S - CDC	Public release U of S - CDC			
AC Goodeve VB ☼	AAFC (Swift Current)	Alliance Seed			
Harvest ☼	AAFC (Winnipeg)	FP Genetics			
Infinity ☼	AAFC (Swift Current)	CANTERRA SEEDS			
AC Intrepid ☼	AAFC (Swift Current)	CANTERRA SEEDS			
CDC Kernen ☼	U of S - CDC	CANTERRA SEEDS			
Lillian ☼	AAFC (Swift Current)	SeCan Members			
CDC VR Morris ☼	U of S - CDC	Proven Seed/CPS Canada			
Muchmore ☼	AAFC (Swift Current)	FP Genetics			
CDC Plentiful ☼	U of S - CDC	FP Genetics			
AAC Prevail VB ☼	AAFC (Winnipeg)	Alliance Seed			
AAC Redwater ☼	AAFC (Winnipeg)	SeCan Members			
Shaw VB ☼	AAFC (Winnipeg)	SeCan Members			
CDC Stanley ☼	U of S - CDC	Proven Seed/CPS Canada			
Stettler ☼	AAFC (Swift Current)	SeCan Members			
SY433 ☼	Syngenta Seeds Canada Inc.	Syngenta Canada			
CDC Thrive ☼	U of S - CDC	Proven Seed/CPS Canada			
Thorsby ☼	U of Alberta	CANTERRA SEEDS			
CDC Titanium VB ☼	U of S - CDC	Proven Seed/CPS Canada			
Unity VB ☼	AAFC (Winnipeg)	SeCan Members			
CDC Utmost VB ☼	U of S - CDC	FP Genetics			
Vesper VB ☼	AAFC (Winnipeg)	SeCan Members			
AAC W1876	AAFC (Swift Current)	CANTERRA SEEDS			
Waskada ☼	AAFC (Winnipeg)	SeCan Members			
WR859CL ☼	Syngenta Seeds Canada Inc.	Richardson Intl			
5603HR ☼	Syngenta Seeds Canada Inc.	Proven Seed/CPS Canada			
5604HR CL ☼	Syngenta Seeds Canada Inc.	Proven Seed/CPS Canada			
5605HR CL ☼	Syngenta Seeds Canada Inc.	Proven Seed/CPS Canada			
<b>Canada Prairie Spring Red</b>			<b>Winter Wheat</b>		
Conquer VB ☼	AAFC (Winnipeg)	CANTERRA SEEDS	CDC Buteo	U of S - CDC	SeCan Members
AC Crystal ☼	AAFC (Swift Current)	SeCan Members	CDC Chase	U of S - CDC	CANTERRA SEEDS
Enchant VB ☼	AAFC (Winnipeg)	FP Genetics	Emerson ☼	AAFC (Lethbridge)	CANTERRA SEEDS
AAC Penhold ☼	AAFC (Swift Current)	SeCan Members	Flourish ☼	AAFC (Lethbridge)	SeCan Members
AAC Ryley ☼	AAFC (Swift Current)	SeCan Members	AAC Gateway ☼	AAFC (Lethbridge)	Seed Depot
SY985 ☼	Syngenta Seeds Canada Inc.	Proven Seed / Richardson Intl	Moats ☼	U of S - CDC	SeCan Members
SY995 ☼	Syngenta Seeds Canada Inc.		CDC Osprey	U of S - CDC	CANTERRA SEEDS
AAC Tenacious VB ☼	AAFC (Winnipeg)	Alliance Seed	Radiant ☼	AAFC (Lethbridge)	CANTERRA SEEDS
5700PR ☼	Syngenta Seeds Canada Inc.	Proven Seed/CPS Canada			
5702PR ☼	Syngenta Seeds Canada Inc.	Proven Seed/CPS Canada			
<b>Canada Western Soft White Spring</b>			<b>Canada Western General Purpose</b>		
AC Andrew	AAFC (Lethbridge)	SeCan Members	Accipiter ☼	U of S - CDC	SeCan Members
AAC Chiffon ☼	AAFC (Lethbridge)	SeedNet Inc.	Broadview ☼	AAFC (Lethbridge)	CANTERRA SEEDS
Sadash ☼	AAFC (Lethbridge)	SeCan Members	CDC Falcon	U of S - CDC	SeCan Members
			Peregrine ☼	U of S - CDC	SeCan Members
			Pintail ☼	AARD (Lacombe)	Mastin Seeds
			CDC Piarmigan	U of S - CDC	Western Ag
			Sunrise	U of S - CDC	Western Ag
			Swinson	U of S - CDC	Public Release, U of S - CDC
<b>Canada Western Extra Strong</b>			<b>TRITICALE</b>		
Burnside	AAFC (Winnipeg)	David W. Faurischou - MB	<b>Spring Habit</b>		
Glencross VB	AAFC (Winnipeg)	David W. Faurischou - MB	Brevis	AAFC (Swift Current)	Wagon Wheel Seed Corp
			Bumper ☼	AAFC (Swift Current)	SeCan Members
			Bunker ☼	AARD (Lacombe)	FP Genetics
			AC Ceria	AAFC (Swift Current)	Progressive Seeds
			Pronghorn	AARD (Lacombe)	Progressive Seeds
			Sunray	AAFC (Lethbridge)	SeedNet
			Taza ☼	AARD (Lacombe)	Solick Seeds
			Tyndal ☼	AARD (Lacombe)	SeCan Members
			AC Ultima	AAFC (Swift Current)	FP Genetics
<b>Canada Western Amber Durum</b>			<b>Winter Habit</b>		

Crop Kind, Class & Variety	Breeding Institution	Distributor	Crop Kind, Class & Variety	Breeding Institution	Distributor
<b>HULLED - FEED BARLEY</b>			<b>WINTER RYE</b>		
Two Row			Brasetto	KWS Lochow GMBH	FP Genetics
CDC Austenson	U of S - CDC	SeCan Members	Hazlet	AAFC (Swift Current)	SeCan Members
CDC Bold	U of S - CDC	CANTERRA SEEDS	Prima	AAFC (Swift Current)	SeCan Members
Brahma	Westbred, LLC.	Proven Seed/CPS Canada	AC Remington	AAFC (Swift Current)	CANTERRA SEEDS
Busby	AARD (Lacombe)	Mastin Seeds	AC Rifle	AAFC (Swift Current)	SeCan Members
Canmore	AARD (Lacombe)	CANTERRA SEEDS			
Champion	Westbred, LLC.	Proven Seed/CPS Canada	<b>LENTIL</b>		
CDC Coalition	U of S - CDC	CANTERRA SEEDS	CDC Asterix	U of S - CDC	Sask. Pulse Growers
CDC Cowboy	U of S - CDC	SeCan Members	CDC Cherie	U of S - CDC	Sask. Pulse Growers
CDC Dolly	U of S - CDC	SeCan Members	CDC Dazil	U of S - CDC	Sask. Pulse Growers
Gadsby	AARD (Lacombe)	SeCan Members	CDC Greenland	U of S - CDC	Sask. Pulse Growers
CDC Helgason	U of S - CDC	SeCan Members	CDC Greenstar	U of S - CDC	Sask. Pulse Growers
CDC Maverick	U of S - CDC	SeCan Members	CDC Imax	U of S - CDC	Sask. Pulse Growers
McLeod	Westbred, LLC.	Proven Seed/CPS Canada	CDC Imigreen	U of S - CDC	Sask. Pulse Growers
CDC Mindon	U of S - CDC	SeCan Members	CDC Impact	U of S - CDC	Sask. Pulse Growers
CDC Trey	U of S - CDC	FP Genetics	CDC Impala	U of S - CDC	Sask. Pulse Growers
Xena	Western Plant Breeders Inc.	Proven Seed/CPS Canada	CDC Imperial	U of S - CDC	Sask. Pulse Growers
			CDC Impower	U of S - CDC	Sask. Pulse Growers
Six Row			CDC impress	U of S - CDC	Sask. Pulse Growers
Amisk	AARD (Lacombe)	SeCan Members	CDC Improve	U of S - CDC	Sask. Pulse Growers
Breton	AARD (Lacombe)	CANTERRA SEEDS	CDC Impulse	U of S - CDC	Sask. Pulse Growers
Chigwell	AARD (Lacombe)	SeCan Members	CDC Invincible	U of S - CDC	Sask. Pulse Growers
Muska	AARD (Lacombe)	SeedNet Inc.	CDC KR-1	U of S - CDC	SaskCan Pulse Trading
AC Rosser	AAFC (Brandon)	SeCan Members	CDC KR-2	U of S - CDC	SaskCan Pulse Trading
Sundre	AARD (Lacombe)	Mastin Seeds	CDC LeMay	U of S - CDC	Sask. Pulse Growers
			CDC Marble	U of S - CDC	SaskCan Pulse Trading
<b>HULLESS - FOOD, MALTING, FEED BARLEY</b>			CDC Maxim	U of S - CDC	Sask. Pulse Growers
CDC Alamo	U of S - CDC	Public release, U of S - CDC	CDC Meteor	U of S - CDC	Sask. Pulse Growers
CDC Candle	U of S - CDC	Public release, U of S - CDC	CDC Milestone	U of S - CDC	Sask. Pulse Growers
CDC Carter	U of S - CDC	SeCan Members	CDC Peridot	U of S - CDC	Sask. Pulse Growers
CDC Clear	U of S - CDC		CDC Plato	U of S - CDC	Sask. Pulse Growers
CDC Fibar	U of S - CDC	CANTERRA SEEDS	CDC QG-1	U of S - CDC	SaskCan Pulse Trading
CDC Hilose	U of S - CDC	CANTERRA SEEDS	CDC QG-2	U of S - CDC	SaskCan Pulse Trading
CDC Lophy-I	U of S - CDC	Public release, U of S - CDC	CDC QG-3	U of S - CDC	SaskCan Pulse Trading
CDC McGwire	U of S - CDC	SeCan Members	CDC Red Rider	U of S - CDC	Sask. Pulse Growers
CDC Rattan	U of S - CDC	CANTERRA SEEDS	CDC Redberry	U of S - CDC	Sask. Pulse Growers
Roseland	AAFC (Brandon)	Wayfinder Farms	CDC Redbow	U of S - CDC	Sask. Pulse Growers
Taylor	AAFC (Brandon)	Alliance Seed	CDC Redcliff	U of S - CDC	Sask. Pulse Growers
			CDC Redcoat	U of S - CDC	Sask. Pulse Growers
<b>FORAGE BARLEY</b>			CDC Richlea	U of S - CDC	SeCan Members
CDC Cowboy	U of S - CDC	SeCan Members	CDC Rosebud	U of S - CDC	Sask. Pulse Growers
Desperado	AAFC (Brandon)	Alliance Seed	CDC Rosie	U of S - CDC	Sask. Pulse Growers
Dillon	Western Plant Breeders Inc.	Proven Seed/CPS Canada	CDC Rouleau	U of S - CDC	Sask. Pulse Growers
CDC Maverick	U of S - CDC	SeCan Members	CDC Roxy	U of S - CDC	Sask. Pulse Growers
AC Ranger	AAFC (Brandon)	FP Genetics	CDC Ruby	U of S - CDC	Sask. Pulse Growers
Stockford	Westbred, LLC.	Proven Seed/CPS Canada	CDC SB-1	U of S - CDC	Simpson Seeds
			CDC SB-2	U of S - CDC	Simpson Seeds
<b>DAT</b>			CDC Scarlet	U of S - CDC	Sask. Pulse Growers
<b>Hulled Varieties</b>			CDC Sovereign	U of S - CDC	Sask. Pulse Growers
SW Betania	Lantmännen SW Seed	Proven Seed/CPS Canada	CDC Viceroy	U of S - CDC	Sask. Pulse Growers
CDC Big Brown	U of S - CDC	SeCan Members			
CDC Boyer	U of S - CDC	SeCan Members	<b>DRY BEAN</b>		
Bradley	AAFC (ECORC)	SeCan Members	AC Black Diamond	AAFC (Lethbridge)	Viterra Inc.
CS Camden	Lantmännen SW Seed	CANTERRA SEEDS	CDC Blackcomb	U of S - CDC	Legumex-Walker Inc.
CDC Dancer	U of S - CDC	FP Genetics/Cargill	Carman Black	AAFC (Morden)	CANTERRA SEEDS
Derby	U of S - CDC	Proven Seed/Mastin Seeds	Envoy	GenTec Seeds	Hensell District Co-op
HiFi	NDSU	Seed Depot	Island	AAFC (Lethbridge)	Viterra Inc.
Jordan	AAFC (Winnipeg)	SeCan Members	CDC Jet	U of S - CDC	B&J Martens Seeds
AAC Justice	AAFC (Winnipeg)	FP Genetics	Lightning	U of Guelph	Hensell District Co-op
Leggett	AAFC (Winnipeg)	FP Genetics	Mariah	Seminis Vegetable Seeds	CANTERRA SEEDS
Lu	AAFC (Lacombe)	SeCan Members	CDC Marmot	U of S - CDC	Sask. Pulse Growers
CDC Minstrel	U of S - CDC	FP Genetics	CDC Pintum	U of S - CDC	Sask. Pulse Growers
AC Morgan	AAFC (Lacombe)	SeCan Members	AC Polaris	AAFC (Lethbridge)	Viterra Inc.
CDC Morrison	U of S - CDC	CANTERRA SEEDS	AC Redbond	AAFC (Lethbridge)	Viterra Inc.
CDC Nasser	U of S - CDC	T & L Seeds	Skyline	Globe Seeds - Netherland	Terramax
CDC Orrin	U of S - CDC	FP Genetics/Cargill	CDC Sol	U of S - CDC	Legume-Walker Inc.
Pinnacle	AAFC (Winnipeg)	FP Genetics	OAC Spark	U of Guelph	U. of Guelph
Ronald	AAFC (Winnipeg)	SeCan Members	CDC Superjet	U of S - CDC	B+J Martens seeds
CDC Ruffian	U of S - CDC	FP Genetics	Winchester	Rogers Brothers	ADM Edible Bean Specialties
CDC Seabiscuit	U of S - CDC	CANTERRA SEEDS	CDC WM-2	U of S - CDC	Legumex-Walker Inc.
Souris	NDSU	Seed Depot			
Stride	AAFC (Winnipeg)	SeCan Members	<b>FABA BEAN</b>		
Summit	AAFC (Winnipeg)	FP Genetics	CDC Blitz	U of S - CDC	Redview Farms
Triactor	Lantmännen SW Seed	CANTERRA SEEDS	CDC Fatima	U of S - CDC	Legumex-Walker Inc.
CDC Weaver	U of S - CDC	FP Genetics/Cargill	F89-4	U of S - CDC	SaskCan Pulse Trading
			Florent	NPZ	DL Seeds
Hulless Varieties			Imposa	Limagrain Nederland	Cyre Seed Farms
Bullion	Lantmännen SW Seed	Proven Seed/CPS Canada	Snowbird	Limagrain Nederland	Bob Park - Lacombe, AB
AC Gwen	AAFC (Winnipeg)	SeCan Members	CDC Snowdrop	U of S - CDC	Sask. Pulse Growers
			CDC SSNS-1	U of S - CDC	Meier Brothers
Annual Forage Varieties			Taboar	Globe Seeds - Netherland	Terramax
CDC Baler	U of S - CDC	FP Genetics	Tabasco	DL Seeds Inc.	Ridell Seed Co.
CDC Haymaker	U of S - CDC	SeCan Members			
Murphy	AAFC (Lacombe)	SeCan Members			



Crop Kind, Class & Variety	Breeding Institution	Distributor
<b>FLAX</b>		
CDC Bethune	U of S - CDC	SeCan Members
AAC Bravo	AAFC (Morden)	FP Genetics
CDC Glas	U of S - CDC	SeCan Members
Hanley	AAFC (Morden)	SeCan Members
Lightning	AAFC (Morden)	CANTERRA SEEDS
CDC Neela	U of S - CDC	CANTERRA SEEDS
Prairie Blue	AAFC (Morden)	SeCan Members
Prairie Grande	AAFC (Morden)	SeCan Members
Prairie Sapphire	AAFC (Morden)	Alliance Seed
Prairie Thunder	AAFC (Morden)	CANTERRA SEEDS
CDC Sanctuary	U of S - CDC	SeCan Members
CDC Sorrel	U of S - CDC	SeCan Members
Taurus	Limagrain Nederland	FP Genetics
Vimy	U of S - CDC	SeCan Members
Westlin 70	CPS Canada Inc.	Proven Seed/CPS Canada
AC Watson	AAFC (Morden)	

<b>MUSTARD</b>		
<b>Yellow</b>		
AAC Adagio	AAFC (Saskatoon)	Mustard 21 Canada Inc.
Andante	AAFC (Saskatoon)	Canadian Mustard Assoc.
AC Pennant	AAFC (Saskatoon)	Canadian Mustard Assoc.
<b>Brown</b>		
Amigo	AAFC (Saskatoon)	Canadian Mustard Assoc.
Centennial Brown	AAFC (Saskatoon)	Canadian Mustard Assoc.
Duchess	Colman's of Norwich	Proven Seed/CPS Canada
<b>Oriental</b>		
Cutlass	AAFC (Saskatoon)	Canadian Mustard Assoc.
Forge	Colman's of Norwich	Proven Seed/CPS Canada
AC Vulcan	AAFC (Saskatoon)	Canadian Mustard Assoc.

<b>SUNFLOWER</b>		
63A21	Pioneer Hi-Bred	Pioneer Hi-Bred
8N270	Mycogen Seeds	Hyland Seeds
Cobalt II	Nuseed Americas	Nuseed Americas
AC Sierra	AAFC (Saskatoon)	AAFC (Indian Head)

<b>SAFFLOWER</b>		
Saffire	AAFC (Lethbridge)	Jerry Kubic (AB)
AC Sunset	AAFC (Lethbridge)	Proven Seed/CPS Canada

<b>SOYBEAN</b>		
900Y61		DuPont Pioneer
900Y71		DuPont Pioneer
P001T34R		DuPont Pioneer
23-10RY		DEKALB
23-60RY		DEKALB
Bishop R2		SeCan Members
LS 002R23		Delmar Commodities
LS 002R24N		Delmar Commodities
McLeod R2		SeCan Members
NSC Anola RR2Y		NorthStar Genetics Manitoba
NSC Gladstone RR2Y		NorthStar Genetics Manitoba
NSC Moosomin RR2Y		NorthStar Genetics Manitoba
NSC Reston RR2Y		NorthStar Genetics Manitoba
NSC Tilston RR2Y		NorthStar Genetics Manitoba
Pekko R2		Brett Young/Elite
PS 0035 NR2		Pride Seeds
Sampsa R2		Brett Young/Elite
TH 32004R2Y		Quarry Seeds Ltd.
TH 33003R2Y		Quarry Seeds Ltd.
TH 33005R2Y		Quarry Seeds Ltd.
Vito R2		NorthStar Genetics Manitoba

Crop Kind, Class & Variety	Breeding Institution	Distributor
<b>CHICKPEA</b>		
CDC Alma	U of S - CDC	Sask. Pulse Growers
Amit (B-90)	ARO Volcani Centre	SaskCan Pulse Trading
CDC Consul (603-3)	U of S - CDC	Sask. Pulse Growers
CDC Corinne	U of S - CDC	Sask. Pulse Growers
CDC Cory	U of S - CDC	Sask. Pulse Growers
CDC Frontier	U of S - CDC	Sask. Pulse Growers
CDC Leader	U of S - CDC	Sask. Pulse Growers
CDC Luna	U of S - CDC	Sask. Pulse Growers
CDC Orion	U of S - CDC	Sask. Pulse Growers
CDC Palmer	U of S - CDC	Sask. Pulse Growers
CDC Vanguard	U of S - CDC	Sask. Pulse Growers

<b>FIELD PEA</b>		
Abarth	Limagrain Nederland	FP Genetics
CDC Acer	U of S - CDC	Sask. Pulse Growers
DS Admiral	Danisco Seeds	FP Genetics
Agassiz	AAFC	CANTERRA SEEDS
CDC Amarillo	U of S - CDC	Sask. Pulse Growers
AAC Ardill	AAFC	Wagon Wheel Seed Corp.
Argus	AAFC (Lacombe)	SeCan Members
CDC Bronco	U of S - CDC	Sask. Pulse Growers
CDC Centennial	U of S - CDC	Sask. Pulse Growers
Cooper	Limagrain Nederland	CANTERRA SEEDS
Cutlass	AARD / CDC	Sask. Pulse Growers
CDC Dakota	U of S - CDC	Sask. Pulse Growers
Delta	Limagrain Nederland	FP Genetics
Earlstar	AAFC (Lacombe)	CANTERRA SEEDS
Eclipse	Limagrain Nederland	FP Genetics
CDC Golden	U of S - CDC	Sask. Pulse Growers
CDC Greenland	U of S - CDC	Sask. Pulse Growers
CDC Horizon	U of S - CDC	Sask. Pulse Growers
CDC Homel	U of S - CDC	Sask. Pulse Growers
AAC Lacombe	AAFC	SeedNet Inc.
CDC Leroy	U of S - CDC	Sask. Pulse Growers
CDC Limerick	U of S - CDC	Sask. Pulse Growers
CDC Meadow	U of S - CDC	Sask. Pulse Growers
CDC Mosaic	U of S - CDC	Sask. Pulse Growers
CDC Mozart	U of S - CDC	Sask. Pulse Growers
CDC Patrick	U of S - CDC	Sask. Pulse Growers
CDC Pluto	U of S - CDC	Sask. Pulse Growers
Polstead	Limagrain Nederland	FP Genetics
CDC Prosper	U of S - CDC	Sask. Pulse Growers
CDC Raezer	U of S - CDC	Sask. Pulse Growers
Reward	AAFC (Lacombe)	SeCan Members
CDC Rocket	U of S - CDC	Sask. Pulse Growers
CDC Saffron	U of S - CDC	Sask. Pulse Growers
CDC Sage	U of S - CDC	Sask. Pulse Growers
SW Sergeant	Lantmännen SW Seed	FP Genetics
Sorento	Limagrain Nederland	FP Genetics
CDC Striker	U of S - CDC	Sask. Pulse Growers
CDC Tetris	U of S - CDC	Sask. Pulse Growers
Thunderbird	AAFC	CANTERRA SEEDS
Trapper	AAFC (Morden)	Public release
CDC Treasure	U of S - CDC	Sask. Pulse Growers
CDC Tucker	U of S - CDC	Sask. Pulse Growers
40-10	SWS, Germany	FP Genetics

<b>CANARYSEED</b>		
CDC Bastia	U of S - CDC	Public release U of S - CDC
CDC Calvi	U of S - CDC	CANTERRA SEEDS
Canlate	J. Joordans Zaadhandel BV	Hansen Seeds
Keel	U of Minnesota; U of S - CDC	Public release U of S - CDC
CDC Maria	U of S - CDC	
CDC Togo	U of S - CDC	CANTERRA SEEDS

**CANOLA**  
see table on pages VR19 + VR20

#### Abbreviations Used in this List

AC	Prefix to variety names Agriculture Canada (Agriculture and Agri-Food Canada)
AAC	Prefix to variety names Agriculture Canada (Agriculture and Agri-Food Canada)
AAFC	Agriculture and Agri-Food Canada
CDC	Crop Development Centre
AARD	Alberta Agriculture and Rural Development, Lacombe, AB
U	University
U of S	University of Saskatchewan
USDA	United States Department of Agriculture
CPS	Crop Production Services

#### Accessing Public Release Varieties

Breeder seed of public release varieties is available to anyone (including farmers and seed growers) for multiplication, increase and marketing. There are no royalties or seed marketing agency fees attached to use or sale of seed produced from Breeder seed of public release varieties. While subsequent seed production may be Pedigreed, this is the buyer's choice and the buyer may increase and sell the seed of public release varieties in any way he/she wishes. To purchase Breeder seed of public release varieties, contact the breeding institution listed above.